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ABSTRACT

Activities, results, and recommendations of a 2-year effort to implement and test a model for vocational and occupational education planning in Illinois are described. An introductory section presents an overview of the rationale and plan for establishing a Regional Occupational Education Coordinating Council composed of representatives of the education community, the business community, and the public sector. Part I, The Labor Market and Educational Planning, contains three chapters. One introduces the model of labor market operations reflecting the roles of individuals (the labor supply), employers (the job demand), and the institutions and people who try to connect the two (the intermediaries). The other two chapters consider how to test the model and examine its assumption that schools can and should act effectively as labor market intermediaries. Part II, Planning from the School Perspective, contains chapters describing the principles and activities involved in review of the economic development and labor market structure of the region, the conducting of a series of workshops to involve local superintendents and community college presidents in the process, and the actual process of organizing the Southwestern Illinois Vocational Education Consortium. Part III, Gathering Local Labor Market Information for Regional Planning, includes two chapters which present procedures and results and analysis of a survey conducted by the consortium to gather information from local employers to help link education to regional labor markets. Part IV, Building a New Model for Vocational Education Planning, includes the findings and conclusions of the study, a chapter presenting a framework for regional vocational education planning based on the experience of the consortium, and a chapter offering recommendations for implementation of such a policy of regional planning throughout Illinois. (WL)

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EDUCATIONAL PLANNING IN THE LABOR MARKET: LINKING OCCUPATIONAL EDUCATION TO REGIONAL ECONOMIC DEVELOPMENT

Volume One

June 1976

PROFESSOR RONALD C. RODGERS, DIRECTOR

VOCATIONAL EDUCATION PLANNING PROJECT

A study conducted jointly by the

GRADUATE SCHOOL OF MANAGEMENT

and

SCHOOL OF EDUCATION

NORTHWESTERN UNIVERSITY

Evanston, Illinois

U S DEPARTMENT OF HEALTH
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EDUCATIONAL PLANNING IN THE LABOR MARKET

VOLUME ONE

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Several members of Northwestern's faculty have assisted with the project. They included Deans B. J. Chandler and William Hazard in the School of Education and Professors Anthony Cresswell, William Garner, Gerald Goldstein, Hervey Juris, Michael Murray and Arthur Smith.

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Apologies and thanks are extended to any others who may have been omitted from the list of contributors to the project. Each of these individuals has offered suggestions and assistance in the completion of this report and activities during the past two years. I alone am responsible for any remaining defects and inaccuracies in this report.

Evanston, Illinois
June 1976

Ronald C. Rodgers
Project Director

CHAPTER ONE

INTRODUCTION

> In recent years there has been a growing view that public education and training poorly prepare youth for work. Unemployment among young workers sixteen to nineteen years of age, which runs three times the average for all workers, makes us wonder whether the fault lies with educational institutions or in the labor market. More than a third of vocational school graduates are still trained for agriculture or home economics, and there is appropriate concern over the way in which employment prospects in the real world are reflected in vocational education and counseling.
>
> . . . .
>
> The time has indeed come in local communities and states to bring together manpower and education planning, to provide career advising within the context of the realities of the longer-term labor market, and to relate systematically business managements, labor organizations and our formal educational institutions.
>
> John T. Dunlop
> U.S. Secretary of Labor (1975)[1]

In 1973, the Division of Vocational-Technical Education requested proposals to develop and evaluate new models for vocational and occupational education planning in Illinois. The request was designed to parallel development of the Division's Management Information System (MIS) in four southwestern Illinois counties -- Clinton, Madison, Monroe and St. Clair. Northwestern University based its response on a conceptual model developed in a report to the Illinois Advisory Council on Vocational Education, "A Design for the State of Illinois." This report is the first of two volumes describing the activities, results and recommendations of a two-year effort to implement that design under research contracts with the Division.

Northwestern's approach to vocational planning reflects the continuing concerns of the Illinois Advisory Council on Vocational Education. The model implemented and tested during the past two years in the Division's MIS field test area in southwestern Illinois derives from three basic factors.

1. Theoretical principles of capital investment in human resources, as reflected in part by the allocation of federal, state and local funds for vocational training.
2. The influence, validity and appropriateness of existing data bases for manpower and vocational planning.
3. Practical demands to combine elements of macro-level (federal and state) planning with micro-level (regional and local) planning through integration of three major elements: education, business and government.

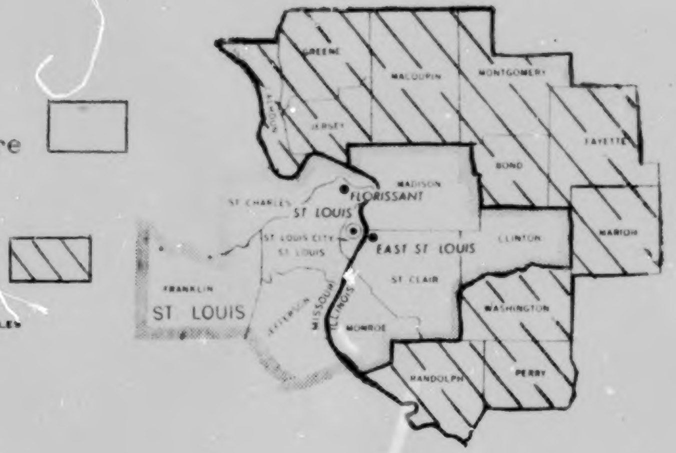
The Vocational Education Planning Project called for establishment of a Regional Occupational Education Coordinating Council (ROECC) composed of representatives of the education community, the business community and the public sector. Objectives of the first year focused on formation of such a council on a demonstration basis with the long-range goals of tying occupational education planning to economic trends; achieving balance between local needs and state resources in occupational education; coordinating the interrelated functions of educational programming, economic development and manpower planning; and linking manpower information to career opportunities of the region.

Northwestern's Vocational Education Planning Project started in the fall of 1974 with a three-factor model of labor market operations reflecting the roles of individuals (the labor supply), employers (the job demand), and the institutions and people who try to connect the two (the intermediaries). Chapter Two introduces the model and its derivative concepts to establish the framework for understanding and evaluating the results of Northwestern's work with the East St. Louis/Metro East area during the past two years.

Work soon progressed to exploration of interest in alternatives and strategies for creation of a local occupational council in the MIS field test area. No attempt was made to justify a narrow definition of the region as a self-contained labor market; the presence of a state boundary assures at least one artificial boundary for individuals who commute to or from jobs on the St. Louis side of the Mississippi River. For purposes of this study, the region was defined during the first year as the four-county MIS field test area. The region expanded to 15 counties in the second year of the project when the Division expanded the MIS field test to include the counties shown in Figure I-1. The goal of the Northwestern project was to test the model without being constrained by the complex issues of overlapping geographic, occupational and industrial labor markets. Chapter Three examines this issue in greater detail.

Among the most crucial assumptions of the model represented by the Vocational Education Planning Project's efforts in the southwestern Illinois counties, were that schools can and should act effectively as labor market intermediaries. Chapter Four examines this assumption in greater detail. The Northwestern model assigns to schools a significant role in helping individuals understand, prepare for and adapt to the demands of work. The role of schools extends far beyond job skills taught in vocational courses. Schools form a primary resource in shaping general attitudes toward work and specific occupations. Schools provide a central core of reading, writing and computational skills regarded by many employers as prerequisite to adaptation and survival on the job. The growing emphasis on career education and job placement among secondary schools also is reflected in professional literature and recommendations for change in Illinois. The Advisory Council report for 1975 urges that "both secondary and postsecondary schools should develop a strong total program of guidance, counseling, job placement and followup. . . . The Council believes (schools) should accept more responsibility" for dropouts in addition to increasing efforts to help graduates find and succeed in jobs.[2]

FIGURE I-1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ST LOUIS
EAST ST LOUIS
CLINTON
MARION
FRANKLIN
ST LOUIS
JEFFERSON
MISSOURI
ILLINOIS
MONROE
ST CLAIR
WASHINGTON
RANDOLPH
PERRY

☐ 4-County 1974-75 MIS Field Test Area (Illinois share of St. Louis SMSA)

▨ Counties added to MIS in 1975-76

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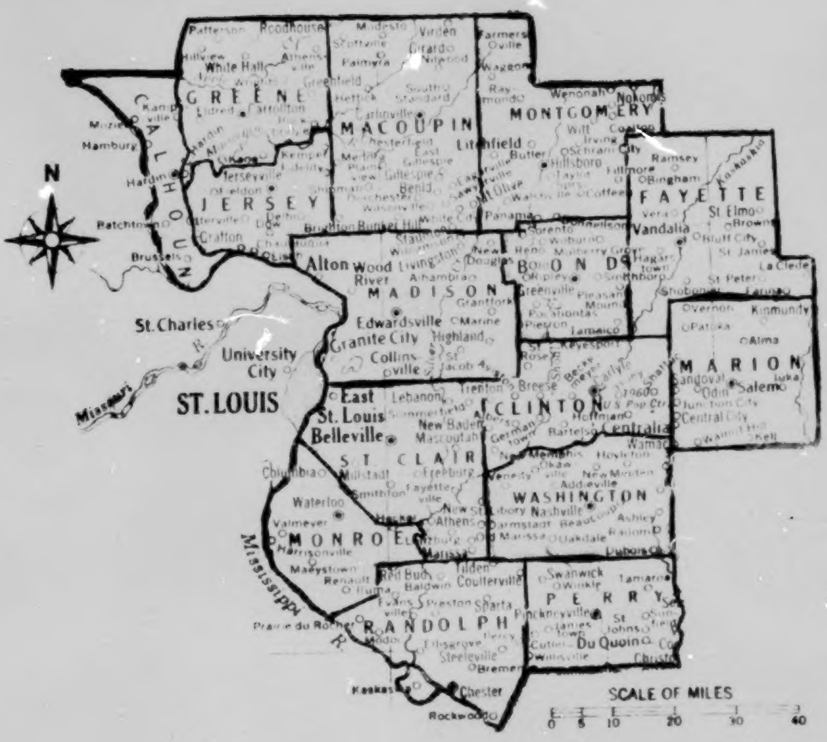
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University City
Missouri R.
Mississippi R.
Alton
Wood River
Edwardsville
Granite City
Collinsville
East St. Louis
Belleville
Litchfield
Hillsboro
Vandalia
Salem
Centralia
Carlyle
Nashville
Waterloo
Sparta
Chester
Du Quoin
Pinckneyville
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15-County 1975-76 MIS Field Test Area

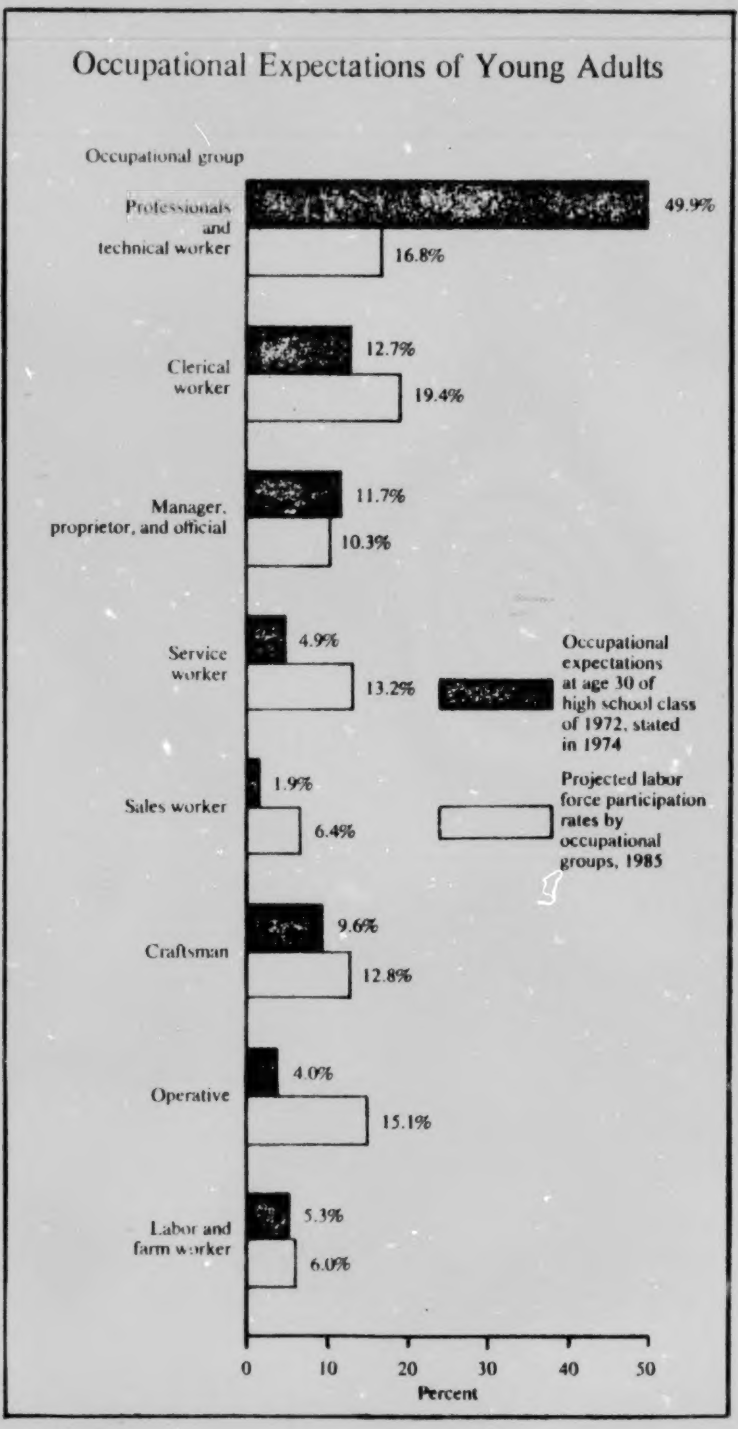
John Dunlop, then U.S. Secretary of Labor, noted in 1975 the changing trend for youth to begin working during secondary schooling and college, rather than the "traditional pattern of school first and then employment. Youth are increasingly both in school and at work part time."[3] Each of these factors tends to support the assumption that schools need to improve their ability to help individuals recognize, prepare for, adapt to and succeed in opportunities as they arise in the labor market.

There is certainly no need to belabor the issue that substantial improvement can occur as schools attempt to perform these tasks. The source and quality of vocational information for counseling and job placement have been most clearly examined during the past few years of economic recession as young people entering the labor market full-time after completion of secondary or college training discovered that employers were not waiting in line to offer them satisfying, high-paying jobs. Figure I-2 illustrates one source of the problem through a national survey of the graduating class of 1972. Nearly 50 percent of the graduates expected to be working in professional, managerial or technical jobs at age 30, despite the fact that just over 17 percent of the jobs projected to be available at that time will be in those occupations. Schools may very well be programming students for disappointment and failure if nearly half of their graduates intend to compete for less than 20 percent of the jobs in the nation's economy.

Preparations for establishment of the regional council required Project staff to begin with a review of the economic development and labor market structure of the Metro East/East St. Louis area Chapter Five summarizes the results of this review to set the stage for steps undertaken in the attempt to create incentives for a regional council. Project staff then developed a series of workshops, described in Chapter Six, to help local secondary school superintendents and community college presidents express their views of the major problems facing vocational educators in the region. These initial workshops also were designed to acquaint schools and

FIGURE I-2

Job aspirations at age 30 of the high school class of 1972 are different from the projected composition of the labor force in 1985.



Source: The Condition of Education 1976
National Center for Education Statistics, U.S. Department of Health, Eduation and Welfare, March 1976.

community colleges with the outputs of the Division's MIS, and the uses of other sources of labor market information for planning. Workshops were tailored to address the needs and uses of data already available for school planning.

Regional planning began with identification of problems facing vocational educators in the region, then moved on to identification and exploration of alternative solutions using resources and cooperation of industry, local and state government, and state educational agencies. The results of these efforts largely represent the product of the first year's work, as described in Chapter Seven.

Three concrete products of the first year's work were designed to facilitate acceptance and use of labor market information in the schools.

1. A slide presentation introducing labor market concepts for the region, supplemented by slides from the Bureau of Labor Statistics. The 13-minute Vocational Education Planning Project slide presentation provides a brief review of the regional planning model. The BLS slides add national occupation and industry data.

2. A planning and resource manual distilling local, state and national labor market information for planning. This manual included a directory of major employers, service agencies and information for the first year's four-county region.

3. Planning worksheets offering a preliminary method of estimating local labor market characteristics from national and state projections of job demand. The worksheets provide a framework for organizing labor market data and ranking programs in terms of need. The worksheets are reproduced in Volume Two of this year's report.

The second and third of these first-year products have been replaced by materials and resources developed during the second year of the project. Brief descriptions of the first year's products are included here, but more detailed reports are available in the two volumes published at the end of the first year. The resource manual attempted to organize complex information from various sources not commonly consulted by vocational educators as they plan programs.

Job demand information for the region, state and nation were aggregated into concise references, supplementing service agency and employer information. Comparisons of national occupational projections with state and local data offered educators incentives for closer examination of information seldom analyzed in the preparation of one- and five-year plans for the Division.

Development of the planning worksheets offered further organizational incentives to use available labor market information. The worksheets offer a way to examine disorganized and incomplete information within a framework suitable for local planning. The format is designed to benefit from the improvement of data quality as refinement of the Division's MIS progresses. The worksheets focus on nine categories of labor market information.

1. National demand: the number of expected new openings for each occupation listed for the nation.[4]
2. State demand: the number of expected new openings for each occupation listed for the state.[5]
3. Regional demand: the number of expected employment opportunities for each occupation listed for the region where the school is located.[5]
4. Job entry requirements by occupation.
5. Ease of entry and barriers to employment by occupation.
6. Labor market conditions of the occupation.
7. Average wages for the occupation.
8. Skills transferance, or the value of skills required for the occupation in other types of employment.
9. Student interest in the occupation.

The resultant ranking of programs sets a framework, or beginning, for planning. Examination of such data highlights the school's role as a labor market intermediary, and offers evidence in reply to claims from some educational planners that little planning is required. Many educators insisted that few changes were occurring which might alter the present state of the labor market or the demand for particular types of skill training in local schools. While this assumption may be reflected in the small number of new programs in the secondary schools over time, significant changes in labor supply have arisen within the past decade through the rapid development of area vocational centers and community college vocational and technical programs. Another advantage of presenting vocational education planners with national, state and local projections of employment emerges from the challenge such data present to their assumptions that while national trends may occur in the mix of occupations and industry, few of those changes reach the local level. The planning worksheet in Part IV of Volume Two of this report provides the opportunity to compare available data at each level of planning to discover local deviations from national or state trends.

The first year ended with the creation, under local leadership and initiative, of the Southwestern Illinois Vocational Education Consortium. The second year of Northwestern's project began with efforts to expand and strengthen the Consortium as the Division increased the size of the MIS field test area, and several tests of the potential of the regional council or consortium planning model for improving labor market planning, information and operation. Two weeks of summer workshops introduced labor market concepts into vocational education planning for the larger Consortium audience, explored planning models and labor market information available in the Consortium area, and attempted to recognize the value and limitations of such data within the framework of the present system of vocational education planning. Chapter Seven includes detailed analysis of the results of these workshops.

Academic year workshops designed to continue development of the Consortium and to provide support for field testing of the Division's MIS soon led to a stern test of the ability of the Consortium to improve local labor market information for planning. With the support and sponsorship of the Consortium, a survey of nearly 2000 local employers was planned and conducted in the 15-county region. More than 750 firms responded, 666 of them with usable data included in analysis. While much has been said about the need to relate occupational training to regional economic development, little appears to have been done to develop and refine methods of gathering information from local employers to help link education to regional labor markets. The Consortium's leadership and energy stimulated substantial progress in the development and implementation of such a model. Chapter Eight reviews the method and procedure used in the Consortium's Employer Survey. Chapter Nine reports the results of the Consortium's survey, including discussion of the implications of such information for vocational education planning and program operation.

The concluding sections of the first volume of this two-year report of Northwestern's Vocational Education Planning Project focus on the findings and conclusions of the study. Chapter Ten presents a framework for regional vocational education planning, based on the experience in the Southwestern Illinois Consortium. Chapter Eleven offers recommendations for implementation of such a policy of regional planning throughout Illinois.

Finally, Volume Two of this year's report presents the detailed data from the 15-county Employer Survey, plus selected materials from the first year's resource and planning manual. Included in the second volume are a directory of responding firms in the Employer Survey, suggestions for locating and using various supplemental resources, and technical summaries of occupational and industry demand data as represented in the survey.

Notes

1. From the forward to Willard Wirtz. The Boundless Resource: A Prospectus for an Education/Work Policy. Washington, D.C.: New Republic, 1975, x-xi.

2. State of Illinois Advisory Council on Vocational Education, FY 1975, Annual Evaluation Report, Springfield, Ill.: December, 1975, p. 35.

3. Wirtz, The Boundless Resource, xi.

4. National projections are derived from Bureau of Labor Statistics estimates applying the methodology "Tomorrow's Manpower Needs." See Bureau of Labor Statistics Handbook of Methods, Bulletin 1711, U.S. Department of Labor. Washington, D.C.: GPO, 1971.

5. State and regional forecasts were published by the Illinois Board of Education in Jan., 1976 through a joint project with the Governor's Office of Manpower and Human Development, the Illinois Bureau of the Budget, the Department of Adult, Vocational and Technical Education, and the Illinois State Employment Service. See Occupational Manpower Projections, 1975-1981, Vol. I, II, III. Springfield, Ill.: Illinois Office of Education, 1976.

PART I

THE LABOR MARKET AND EDUCATIONAL PLANNING

Planning is a basic management concept that is familiar to educational administrators everywhere. Every responsible superintendent, principal and vocational education director is engaged in some form of planning to achieve purpose and direction. But although planning is ubiquitious, there may be no concept in the lexicon of educational administration more misunderstood and in need of clarification. Planning often takes its meaning from the context and purpose at hand. The perspective taken in this study focuses on the labor market -- that social system in which exchanges occur between workers and those employers who use workers' productive capacity (Lewin, 1974:1).

The appropriateness of the labor market perspective for vocational education planning rests on several basic assumptions to be examined in Chapters Two, Three and Four. The first assumption evolves from the economic rationale for undertaking vocational education at public expense. Lecht's (1974: 6) evaluation for the National Planning Association documents general increases in earnings and reduction in unemployment among the vocationally educated. Early emphasis in American vocational education focused on attempts to adapt individuals to the needs of employers while helping students recognize and adjust to their "places in industrial society" (Lazerson and Grubb, 1974: 26-27). Trait factor theories of vocational interest measurement and matching also supported these early assumptions that vocational education was separate from academic education based on this economic criterion. Vocational education was designed to help people develop skills immediately transferable to jobs in the local labor market. Early support for vocational education rested on an implicit assumption that responsiveness to employer demands through industrial education benefited individuals and society equally throuth the economic returns of a vocationally trained labor force.

Lecht also noted a limitation to the economic argument. He found that economic outcomes attributed to vocational education are variable, and that the benefits to individual graduates depend on economic conditions in the geographic labor markets within which people work. This project, for example, focused on a local labor market which includes at least three distinguishable sub-markets. East St. Louis is the most depressed of the local markets; the Employer Survey described in Part III of this report found that many employers were abandoning facilities in East St. Louis to move east or north in the Metro East area, or west to the Missouri side of the Mississippi River. The second sub-labor market in the Metro East area included the major industrial and residential centers of St. Clair, Madison and Marion counties. Growth and opportunities in this portion of the region appeared much more promising than in East St. Louis. The third market is essentially rural, representing smaller communities in which the major employers are small manufacturers and retailers.

Public policy in the 1960s shifted to reflect changing values and expectations about work which represent the second assumption of the vocational education system of today. Increased interest in the personal rewards and satisfaction of work, expanding opportunities for advancement through a long period of economic growth, increased mobility of the work force as transportation systems improved and rising concern for employer responsibility to individuals contributed to increased emphasis on work as part of the quality of life. The Vocational Education Act of 1963 and its subsequent amendments of 1968 urged that training be of high quality and "realistic in light of actual or anticipated opportunities for gainful employment which is suited to individual students' needs, interests and abilities" (P.L. 88-210: Part A, Section 1). The 1968 Amendments placed more emphasis on people needs, rather than employer demand for skilled workers.

What follows in Chapters Two, Three and Four may look familiar at times to those who joined in the review process of the first year's report. The underlying concepts are identical to those presented in last year's working paper, Planning for Vocational Education and Regional Development. We hope, however, that the next three chapters represent refinement of the conceptual framework described in Volume One of last year's report, based on the benefits of an additional year of work with the model.

CHAPTER TWO*

VOCATIONAL EDUCATION, LABOR MARKETS AND REGIONAL DEVELOPMENT AND PLANNING

The ability to conceptualize a labor market as an economic resource is a critical element which must be used in defining a region from the perspective of this study. The model we explore assumes vocational education is an important element in the operation of a labor market which facilitates matching people and jobs through its functions of skill development and job readiness preparation.

In this chapter we will examine the regional labor market--how it works and its linkage to vocational education, to planning, to economic development of a region and to administration. The role of information in the labor market, and the role of the Regional Vocational Education Planning Council in the gathering and use of labor market information will be discussed.

What is a labor market? Quite simply it is a market place, a place where employers buy or employ labor and where people sell their labor. The geographic limits of the market are in general defined by the net advantages a person expects from a job, and the net advantages an employer expects from the employment of a given person with a particular skill or level of skill. Occupations in which there is often a scarcity of supply accompanied by transferability of skill, such as scientist or engineer or doctor, may have as their geographic limit the entire world. A common laborer, by contrast, may find the market for his labor within one square mile of his home. Employees may elect to live and perform their work in other lands because the pay is sufficient to offset the readjustment which may be required to live in a foreign country. The same might be said of many occupations associated with the construction of the Alaskan pipe line, or of off-shore well-drillers, who live in dangerous conditions and perform hard work in exchange for high pay and substantial periods of rest. People who have the necessary skills and are willing to live for long periods away from home and work under hazardous conditions are relatively scarce. Employers are willing to pay high wages to attract the needed people. Also, there may be no market for a highly skilled and specialized machine operator whose machine has become obsolete.

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*The conceptual model and the draft of this chapter were provided by Professor Frank Cassell, Graduate School of Management, Northwestern University. Any additions, errors and omissions are the responsibility of the project director.

The existing mix of agriculture, industry, manufacturing and service of an area, together with its technology and mode of organization, helps characterize the occupational mix of the region. The industrial mix also helps define educational and vocational requirements and opportunities, the kinds of industries which are attracted, the general economic character of the region and thus the labor market. The limits of the market may also be defined by lack of information or the inability of the worker or the employer to acquire information. For example, the absence of information about availability of people or the wage needed to attract the needed labor may operate as a barrier to economic development of a region.

Limits of the labor market may be defined by differences in culture or social custom. Even relatively high pay may be insufficient to attract a worker from one county to an adjacent county when the perceived disadvantage of relocating outweighs the advantage of moving. This was demonstrated in experimental mobility projects of the U.S. Department of Labor in the 1960s. Still another constraint on the limits of the labor market is the net disadvantage of extended commuting to and from work: difficult driving, transportation cost, and the physical stress over the advantage of expected pay. In short, both the employer and the individual make complex cost/benefit calculations to determine whether they will join in an employment relationship. These considerations, too, help define the scope of the market.

The educational system is one means for altering the occupational mix or the economic character of the region. The educational system, especially the vocational education system, has the potential for increasing the labor supply by helping people to adapt to new technologies and by replacing obsolete skills with new and needed skills. Education also may increase the range of knowledge and skills of the population, both young and old. The educational system is an economic resource to a nation, a state or a region. It is a resource for building or maintaining and restoring human knowledge and skills--human capital--as the means for helping economic development and increasing productivity of workers in the region.

Understanding the labor market and its workings is, therefore, a critical element in planning. The labor market is important in responding to the short term needs of industry, the intermediate planning needs of educators, and long term trends of emerging occupations and technologies. Planning for labor market changes may help prevent population loss and economic deterioration and preserve economic and social vitality in a region.

It is labor market information which helps us appreciate these things --the past, the present, and the future--however flawed our informational crystal ball. These are critical elements in planning of any kind.

Labor market information is one of five basic elements of a labor market. The other four are the supply of labor, or the number of people in the market by characteristic such as age, race, skill(s), education, experience; the demand for labor, or the number of jobs in the market seeking workers classified by job requirements; the intermediaries (adaptive and facilitating mechanisms) which bring people and jobs together and, when the match is not good, perform the work necessary to aid the individual and the employer to adapt to each other; and finally price, which includes basic wages, benefits, and other perquisites and conditions of the job. Price helps determine net advantage or disadvantage to the person or to the employer, whether the employer will employ or the person will accept the job. Price is the allocative mechanism of the market which determines basically whether and where people will work, the conditions under which they will work, the quality of work and productivity, and whether the costs of work are such that capital will be substituted for labor, or one grade of labor for another.

This is how the labor market in a community or a region is presumed to operate. This view would be valid if information and competition were perfect, skills of the workforce matched the skill needs of employers, the educational system was tuned to the needs of employers and people, there were no discriminatory practices, preferences of people perfectly matched conditions of work offered by employers or the wage offered by employers was efficiently responsive to changes in supply and demand.

The fact is, however, that nothing is perfect. There are inefficiencies and consequently there are imbalances in almost every labor market. There may be too many people for the jobs offered, the skills of people may not be matched to the skills required by employers, and worker productivity may not match the wage paid by the employer. Furthermore, there are artificial barriers which contribute to imbalances, including discrimination on the basis of race, sex, age, religion or ethnic background.

Finally, in every labor market there are people in transition from one condition of life to another: from unemployment to employment, from school to work, from one occupation to another, from worker to manager, from part time to full time work, from unpaid to paid employment, from high level responsibility in middle life to less responsibility in later life, and so on. At any given time millions of persons in the United States are in various stages of transition. At the same time there exist in every labor market barriers and inefficiences which often make transitions difficult.

These barriers and inefficiences lead to the function of the intermediary (I), which is to aid the price or the wage in facilitating such transitions, improve the operation of the market, reduce imbalances between supply (S) and demand (D), reduce unemployment, increase the availability of workers for employers, and enlarge opportunity for both people and employers.

These concepts of the labor market have been combined into a shorthand reference: SID. SID is the basic element of labor market operations whose level of efficiency is an important determinant of economic attractiveness and vigor of a region. Aside from its humane function of giving all persons a better opportunity to work and achieve self-sufficiency and self-realization, the intermediary (I) has the function of increasing the efficiency of the market.

Figure II-1, Unemployment-Employment Transitions and Adaptations, is a skeletal model of the general adaptations required and the transitions which actually occur in moving from unemployment to employment under two sets of conditions: (1) unemployed with skills (which assumes experience), and with adequately defined and realistic goals; and (2) unemployed and lacking skills or experience, with inadequately defined or unrealistic goals and without the necessary degree of job readiness to adapt to the discipline of the workplace.

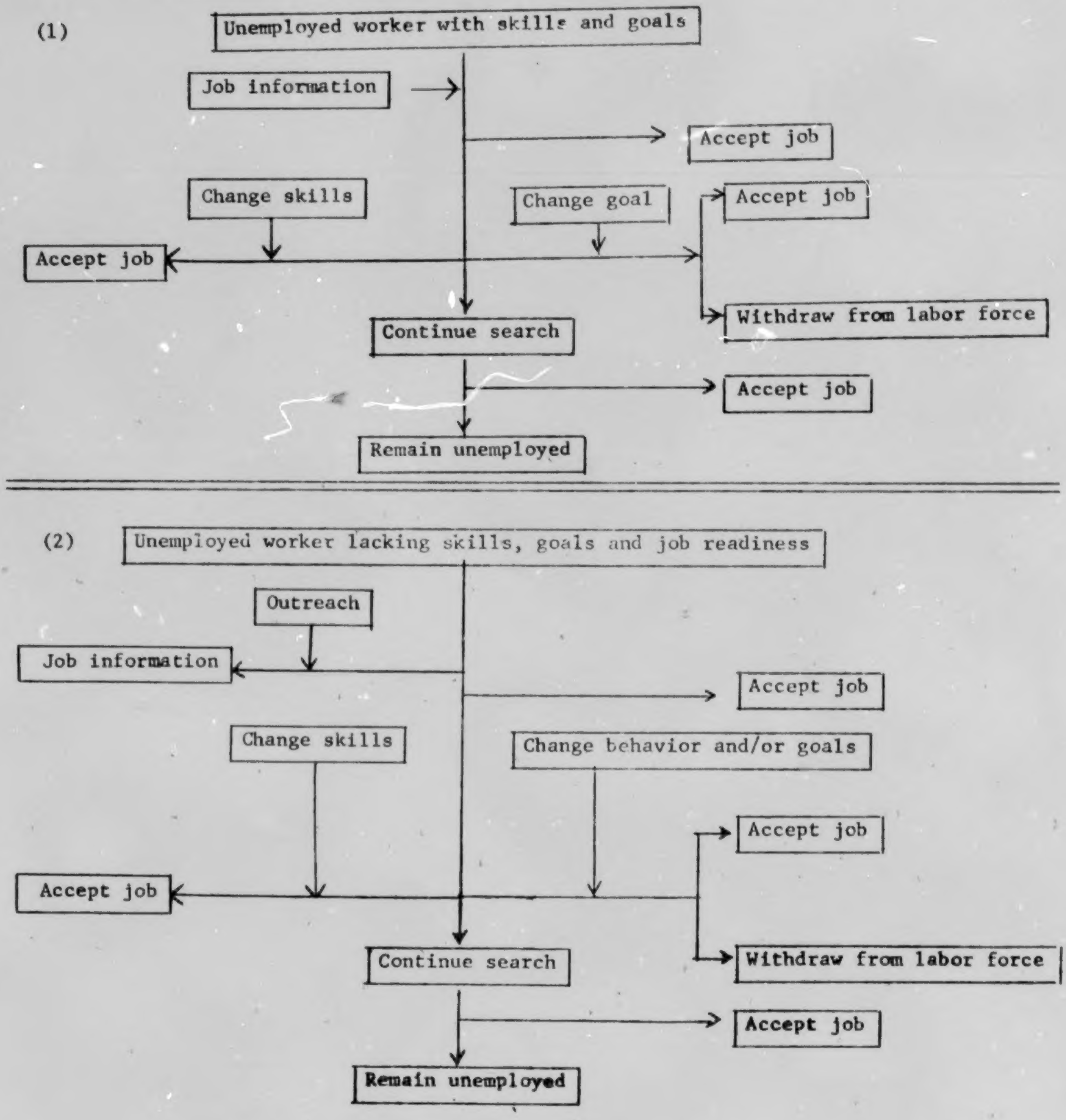
Common elements under these conditions include information and the capacity of the individual to make changes in his skills and goals. The second condition also assumes that the individual may have to change his behavior in addition to changing goals and skills, though changing goals and skills will impact on behavior.

This transition model quite neatly establishes the role of the intermediaries and facilitators whose functions are sketched in Figure II-2, the Labor Market Operations Model.

As can be seen in the model, the Intermediary (and facilitator) (I) function of the labor market includes the assembly and transmission of job-person information, facilitation of access to jobs and careers, education and training to provide skills and knowledge, job readiness preparation, on-the-job training and job success aids provided through counseling, guidance, coaching, orientation programs and psychological support provided to both employee and supervisor. Some or all of these resources may be needed to help individuals through transitions and to aid people and employers to accommodate to one another's requirements. Such services may be needed singly or in combination, the latter being the more likely situation.

These intermediary, facilitating resources may be provided by private and non-profit sectors or by public agencies. In any case, the organization of services and information to help an individual to enter employment or to secure new employment highlights the need for a community or regional structure which enables systematic collection, FIGURE II-1[1]

UNEMPLOYMENT-EMPLOYMENT TRANSITIONS AND ADAPTATIONS

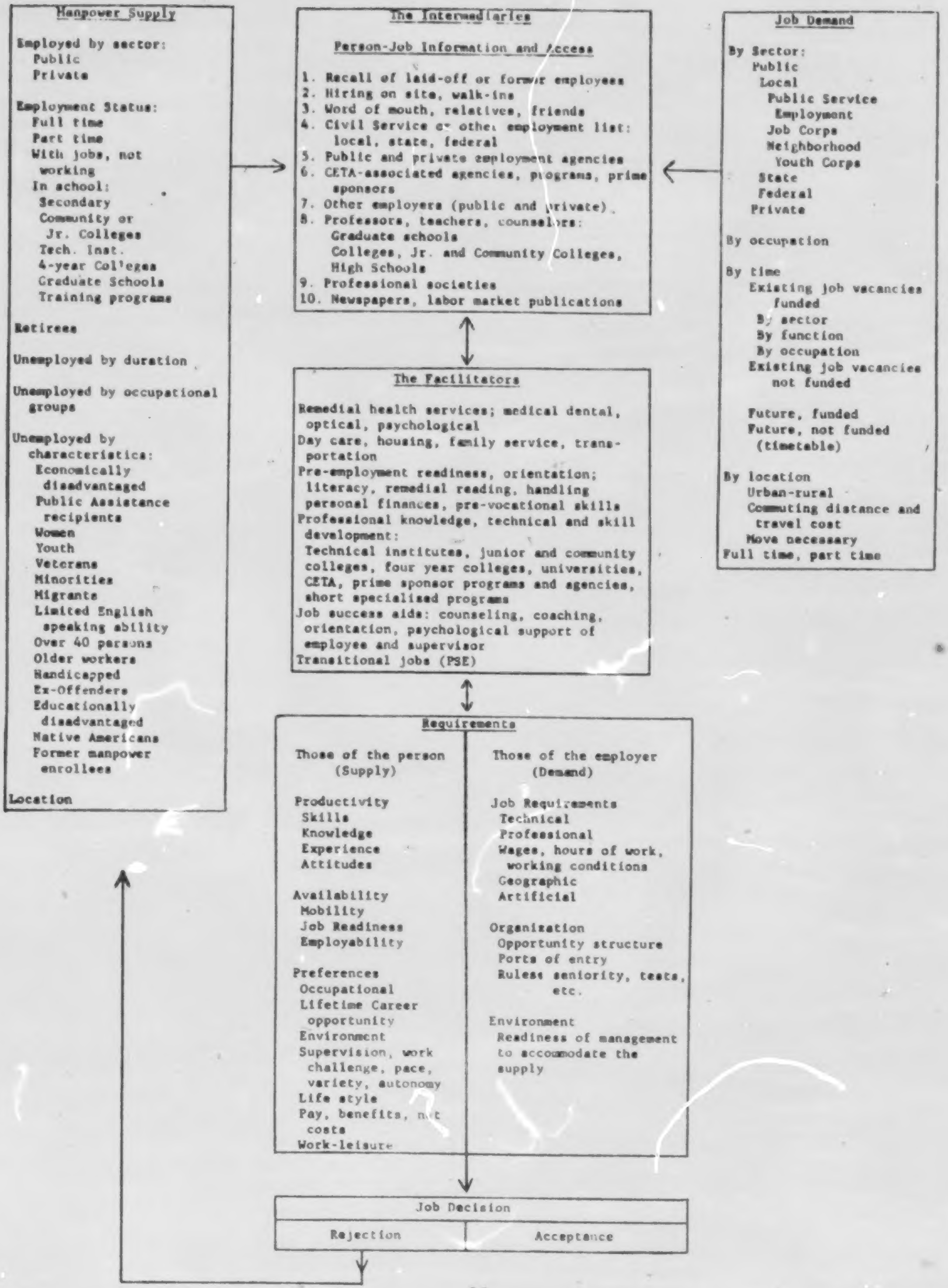

(1)
Unemployed worker with skills and goals
Job information
Accept job
Change skills
Change goal
Accept job
Accept job
Withdraw from labor force
Continue search
Accept job
Remain unemployed
(2)
Unemployed worker lacking skills, goals and job readiness
Outreach
Job information
Accept job
Change skills
Change behavior and/or goals
Accept job
Accept job
Continue search
Withdraw from labor force
Accept job
Remain unemployed

---

[1] Prepared in September, 1968, revised in March, 1972, revised in June 1976, Frank H. Cassell. Original concept devised by Professor Cassell, Graduate School of Management, Northwestern University and Professor Joseph Ullman, Purdue University.

FIGURE II-2

LABOR MARKET OPERATIONS MODEL


Manpower Supply
Employed by sector:
Public
Private
Employment Status:
Full time
Part time
With jobs, not working
In school:
Secondary
Community or Jr. Colleges
Tech. Inst.
4-year Colleges
Graduate Schools
Training programs
Retirees
Unemployed by duration
Unemployed by occupational groups
Unemployed by characteristics:
Economically disadvantaged
Public Assistance recipients
Women
Youth
Veterans
Minorities
Migrants
Limited English speaking ability
Over 40 persons
Older workers
Handicapped
Ex-Offenders
Educationally disadvantaged
Native Americans
Former manpower enrollees
Location
The Intermediaries
Person-Job Information and Access
1. Recall of laid-off or former employees
2. Hiring on site, walk-ins
3. Word of mouth, relatives, friends
4. Civil Service or other employment list: local, state, federal
5. Public and private employment agencies
6. CETA-associated agencies, programs, prime sponsors
7. Other employers (public and private)
8. Professors, teachers, counselors:
Graduate schools
Colleges, Jr. and Community Colleges, High Schools
9. Professional societies
10. Newspapers, labor market publications
Job Demand
By Sector:
Public
Local
Public Service Employment
Job Corps
Neighborhood Youth Corps
State
Federal
Private
By occupation
By time
Existing job vacancies funded
By sector
By function
By occupation
Existing job vacancies not funded
Future, funded
Future, not funded (timetable)
By location
Urban-rural
Commuting distance and travel cost
Move necessary
Full time, part time
The Facilitators
Remedial health services; medical dental, optical, psychological
Day care, housing, family service, transportation
Pre-employment readiness, orientation; literacy, remedial reading, handling personal finances, pre-vocational skills
Professional knowledge, technical and skill development:
Technical institutes, junior and community colleges, four year colleges, universities, CETA, prime sponsor programs and agencies, short specialized programs
Job success aids: counseling, coaching, orientation, psychological support of employee and supervisor
Transitional jobs (PSE)
Requirements
Those of the person (Supply)
Productivity
Skills
Knowledge
Experience
Attitudes
Availability
Mobility
Job Readiness
Employability
Preferences
Occupational
Lifetime Career opportunity
Environment
Supervision, work challenge, pace, variety, autonomy
Life style
Pay, benefits, net costs
Work-leisure
Those of the employer (Demand)
Job Requirements
Technical
Professional
Wages, hours of work, working conditions
Geographic
Artificial
Organization
Opportunity structure
Ports of entry
Rules: seniority, tests, etc.
Environment
Readiness of management to accommodate the supply
Job Decision
Rejection
Acceptance

(c) Frank H. Cassell
Northwestern University Graduate School of Management

April 1976

analysis and use of data, and permits efficient mobilization of services attuned to the needs of the individual. Hence the need for common regional boundaries shared by governmental departments of the state (and even of the federal government).[1]

In reflecting upon numerous interviews the researchers had with both providers and consumers of vocational education in southwestern Illinois, it seems reasonably clear that the vocational education system provides some skills; whether they are relevant to current needs is unclear. Respondents showed a substantial lack of awareness of the needs of employers or the job qualifications. However, employers view completion of vocational programs as evidence of ability to work in a disciplined environment--a more important attribute perhaps than acquisition of job-specific skills.

Figure II-1 also describes events in community or regional labor markets. The branch of the chart showing Change of Skills as an option or alternative open to the job seeker or the unemployed person can be viewed in two ways: (1) as the means for altering job or career opportunities and (2) as the means for delaying entrance into the labor market. The significance of this observation can be seen by examining choices made by youth who elect to continue in a community college program in preference to entering an apprentice program which combines schooling and work. The choice is being made on the basis of a complex cost/benefit calculation including, among other considerations, foregone earnings and a perception of low occupational status in contrast to expected long-term aggregate earnings, higher status, and improved opportunities in the labor market. Another example would be the person who, when unable to find the kind of job he or she wants, enters school to have something to do until the right job opens up. Meanwhile, the individual learns skills which might lead to other opportunities if the preferred job turns out to be unavailable.

People on the supply side of the labor market may have multiple options including jobs, schooling and leisure. On the demand side, a similar form of substitution may occur where the employer measures the cost of labor against the cost of capital (substituting machinery for people), or the cost of one grade of labor versus the cost of another. A third alternative may be use of a lower grade of labor which may be permitted by changed methods, design and technology. Substitution is included as a caution to those who interpret demand and supply labor market data, and as a realistic appraisal of what is likely to happen under actual conditions.

The models in Figure II-1 have the shortcoming of not representing the person who is a job seeker though already employed; a person who may be seeking to change jobs, careers, industries or sectors, such as from the private to the public sector. Ordinarily one would simply substitute in the model or add to it Employed, and add the people to those already lined up for work; the most qualified at the front, the least at the rear. As unemployment recedes the queue shortens; the most qualified are hired first during improving employment conditions, with the poorly qualified hired last. It has been observed however, that quite often those at the end of the line never really move up in the queue; better qualified people insert themselves in the queue ahead of the less qualified. The solution would seem to be to improve the position of the poorly qualified by improving their skills and personal resources. But how is this to be done? Such persons at the end of the line frequently work in jobs which do not encourage the development of qualities needed to make the move to better employment.

Such jobs in a secondary labor market require little or no skill and provide no intrinsic qualitites upon which the individual can build to more advanced and better paying work. Working conditions may be casual and undisciplined; supervision is of poor quality, adding nothing to the experience of the individual. Pay is low, commensurate with productivity; benefit programs are small or non-existent, and the entry job is often a dead-end. Most people would say these are "lousy" jobs.

In contrast, the good jobs are usually in the primary sector, where the pay is generally much higher, the benefits package entensive and costly, productivity requirements are higher, employment is stable, opportunity for advancement is present and often encouraged. Most important, stability of work permits the individual the continuity of experience needed to learn a job or task and to develop good work habits, the discipline needed to be productive, and the mobility that goes with those attributes.

Put another way, how does a casual day laborer make his way from railroad track repair to a skilled machine operator job in an aircraft plant or electronics factory or to a clerical job in a bank? If he makes it at all it is very difficult, for he must learn and unlearn much, and overcome career stereotyping by employers.[2]

This is the essence of the Requirements box of Figure II-2. For any person--and especially a person in the secondary labor market--to make his way into a good job in the primary market requires a matching of the requirements and resources of individual productivity, availability and preferences with those of the employer (productivity and environment). These requirements change over time depending on the balance of labor supply and demand. The lower the unemployment rate, the less rigorous the requirements and the greater the willingness of the employer to adapt to workers in order to compete for their services. The higher the unemployment rate, the more rigorous the requirements and the greater the adaptations required of the job seeker. In a box just above Requirements is one labeled The Facilitators (Figure II-2) which includes supportive services or resources which are needed to bring the person and the employer together in an employment relationship. In the primary market, many of the skills, experiences and other resources needed by the individual to adapt to a new and more demanding employment are learned on the job. This is seldom true in the secondary market.

The significance of this discussion of primary and secondary labor markets is that counselors, teachers and others who may advise individuals about jobs and careers need to perform this task with care. Continuous referral of an individual to secondary market jobs, where opportunity for growth and development is limited if not foreclosed, may trap a person in low skilled, low paying jobs for life. Moving workers from the secondary to the primary market is one way to reduce the number of working poor. This suggests the need for a strong program of community facilitators to help people move from secondary market jobs. This is a function schools can perform through training and vocational guidance.

The need for greater awareness of the difference between these two markets is increasingly apparent as individual young people begin working during high school. Rodgers (1975) found that high school students were working, mainly in secondary labor market jobs, to earn money and to examine first-hand the working conditions and environments of various types of primary labor market careers. We do not suggest, as some imply, that young people should or can afford to refuse to work in such jobs. But counselors, teachers, parents and vocational administrators have a responsibility to help young people understand the process of moving into primary labor market employment.

Freedman (1969) examines the process of work establishment for out-of-school youth, and Rodgers' findings relating early work experience to the learning and attitudes of high school students also may suggest elements of the transition from secondary to primary labor market jobs.

The critical element in this transition, however, will not be found in schools. Facilitators and intermediaries must coordinate their efforts to aid the individual to improve his or her productivity before access to primary labor market jobs will occur. One reason employers may rely on secondary market positions is that the employer's income from what a secondary market worker produces may be too low to offer higher pay and incentives; the worker's marginal product is closely related to productivity on the job. Only after the employer observes or expects that the individual's productivity is consistently higher than a primary labor market wage can the individual move into a higher paying, more secure job. Charity has limited utility in a competitive labor market.

The model of a labor market in Figure II-2 suggests a need for labor market information in a community or a region sufficient to cope with current problems and to plan to meet future conditions.

This model, incidentally, has been a general guide to the surveys undertaken in this study. The particular contribution to labor market information made by this study is the production of short term demand data which school planners and others can use in their work. This modest step, taken to illuminate the demand side of the market, is a big departure from the 1960s, when research was focused largely upon the characteristics and problems of the supply side of Figure II-2. This is an initial effort to fill the gap in local labor market information left by the concentration of the federal government and state upon macro manpower data, which has limited utility at the local or regional level because of the difficulty of extrapolating from national data to local or regional areas. A start has also been made in this study, which should be continued, in producing low cost data at the community or regional level. It has big gaps. There is a need for longer range projections as employers adapt to reporting such data, more detail on demand and supply and more information about the qualitative aspects of employment and work. We need better data on facilitators and intermediaries and the manner in which they are organized and coordinated to produce services to the community. We know too little about the demand for education at all age levels and the attitudes, knowledge and decision-making processes of families which decide upon such matters as schooling and occupation and careers.

It may seem redundant to reiterate that the foregoing is merely the description of a labor market--how it probably works and how the various parts of the market are linked to one another. It is not a program. It is not necessarily the description of a region, though it is a critical element of the economy of a region. Missing is the purpose. To what purpose should the labor market be put?

This question is necessary to help decide what kind and how much information is to be collected and how the market and especially the intermediaries and facilitators need to be organized. As it stands on paper, the labor market is passive. It will come alive only when people in local and state government and education determine:

1. The role of the regional vocational education council; and
2. Whether the regional or state manpower (and economic) policy is to be active or passive.

During the 1960s the nation moved from a generally passive manpower policy to an active one in which policies were developed to alter both the size and character of the demand and the supply to better utilize our industrial and human potential. This step required labor market information to plan, to facilitate mobility of workers, to encourage migration of industry to areas of high unemployment, to measure and evaluate results, and to help decide on alternate policies. The economic policies were largely directed to increasing demand. Manpower policies were directed to improving the quality and availability of the labor supply. Note that both went together. Accomplishing this required the development, training and retraining of labor market intermediaries, and the creation of new facilitators.

This move to an active manpower policy provided a contrast to the earlier role of such intermediaries as the Employment Service, which consisted of being available when needed to match people and jobs. This is an example of the kind of policy decisions the state and its regions need to make. Such policy decisions must be known before others can plan for the recruitment of industry, turning the vocational education system into a genuine economic resource to build the employment and economic potential of each region and the state.

Finally, from the vocational education point of view, if the policy decided upon is an active one, Figure II-2 provides guideposts for helping vocational educators develop roles: facilitator, intermediary, economic resource, organizational link between supply and demand, supplier of labor market information, and so on.

In this connection a further word about the regional vocational educational committees is in order. During this study the researchers have had the opportunity to observe the growth in interest and personal development among educators involved in the project. Though this is gratifying, a more important observation was that teachers and administrators alike were revealed to be important sources of labor market knowledge. Many were unaware they possessed this information until they became involved in the research survey of the regional labor market. Their knowledge was narrow, often based upon limited experience which could be enriched with more contacts or a broader range of contacts. That is why the researchers are so interested in developing the indigenous survey technique further; it is a good learning device as well as a labor market necessity.

The regional vocational education council has the potential, providing it is enlarged to include employers and other intermediaries, facilitators, planners, parents, and teachers, to add a critically needed qualitative dimension to their knowledge of the labor market. To reiterate, the function of the regional council and the role of vocational education depends upon the policy chosen: passive or active. This choice will be discussed in greater detail in Part II of this report.

Notes

1. One of the more troublesome aspects of providing coordinated services carefully focused on the needs of the individual at the federal level has been overlapping governmental jurisdictions and boundaries.

2. For a further discussion of primary and secondary labor markets, see Peter Doeringer and Michael Piore, *Internal Labor Markets and Manpower Analysis*. Lexington, Mass.: Heath, 1971: 163-183.

CHAPTER THREE

DEFINING VOCATIONAL EDUCATION PLANNING REGIONS

Virtually any definition of economic and labor market regions appropriate for vocational education planning will include many organizations and groups with differing goals. Some organizations will nearly always compete for limited resources, students and job placements in a region or local labor market. In developing a planning model, there must be mutual advantage for each party to encourage participation and cooperation. Regional economic development through active vocational education planning to stimulate growth and maintain stability in local labor markets may provide a common interest linking the interests of each of the participants like a set of overlapping circles. The interests of schools, businesses, local governmental leadership and state agencies can be mutually supportive, each sharing common interests and complementary goals without any two addressing all of the same goals. The central focus for such regional planning may be more appropriate use of educational and vocational training resources in each part of the state for the mutual benefit of individuals, employers, schools and government.

Efficient operation of a labor market depends on the presence of several factors of production such as a supply of skilled labor, capital and facilities within which to organize an economically productive effort. To assure that these factors will be developed in **the** southwestern Illinois region, this project has identified the economic development of the region as a basic need. Our rationale stems from several considerations.

An economically rational region offers the opportunity to organize an efficient labor market in which the skill and knowledge base is sufficiently broad and deep to contribute to the region's economic development. The availability of productive workers provides a nucleus around which broader forms of economic activity can be organized and promoted.

Population trends reflect a shift toward re-ruralization as people remain in or return to non-urban communities. Regional economic planning through vocational education may be one means to assure that workers will be available to employers, and that jobs may exist for people in the region. A means must be found for accommodating shifts in population to retain the Illinois labor force, attract additional workers, improve the quality of life, maintain the standard of living and encourage growth. If the region is not made more attractive, the labor supply may be forced to move to more attractive areas of the nation.

Regionalization can permit a more efficient use of educational resources, reduce the costly duplication of programs and facilities, and through training, provide a pool of skills needed in an efficient labor market. Vocational education can be planned on a regional basis, in tandem with other complementary and reinforcing services including local education districts, employment regions, community college districts, area vocational center regions, information areas, and geo-political boundaries. Such a planning model offers very good opportunities to improve utilization of resources to build the economy of the region and the state. A strong, well-integrated and coordinated regional education and vocational education system is a critical competitive element in producing an environment in which workers want to live, work and raise their families.

The efficiently operating labor market should bring workers and employers together. To operate efficiently, the labor market must contain a workforce which has the skills, talents, and motivation provide incentives for employers to locate within the region. This matching links education and training to employment for the mutual benefit of employers, workers and educators. It is around this concept that regional development and planning is considered.

EXISTING REGIONS IN ILLINOIS

Governmental units and agencies typically create many boundaries within any regional labor market. Local townships, school districts, park districts, municipal governments and counties compete for resources to provide desired services. State agencies also regionalize, often for administrative convenience in assigning staff to assist or monitor local governmental units. Federal government agencies add their own boundaries to the picture with funds for Comprehensive Employment and Training Act (CETA) prime sponsors, with definitions of Standard Metropolitan Statistical Areas (SMSAs), and with a variety of other administrative or political purposes.

The challenge to regional vocational education planning differs from political definitions of regions in several ways. Perhaps the most essential departure is that the framework for vocational education planning councils recommended and investigated in this study are defined by economic development and labor market behavior. Defining such regions, however, should begin with recognition of the existing boundaries drawn by various agencies of government. Although it is not certain that the established units of government would be exactly suited to be an economic development region, it would be fruitful to examine some of the existing regions to form a concept of the resources that they can provide. It is likely that each one stands to benefit from the others in some way. The interests of educational institutions, businesses and government can meet like a set of overlapping circles. Each party would have many interests not held in common with the others, but each could be concerned with the economic development of the region within which it operates.

Federally Defined Regions

There are three types of federally defined regions within Illinois considered in this study. SMSAs exist to ease federal record keeping and census reporting. Regional planning commissions and CETA prime sponsors have arisen in response to federal funding opportunities with the state.

Standard Metropolitan Statistical Areas

The SMSA is a region established by the Census Bureau for the purpose of aggregating statistical data which are applicable to labor market information and population projections. In the Midwest an SMSA is a county or a group of contiguous counties which contain one city with 50,000 inhabitants or more, or "twin cities" with a total population of at least 50,000. In addition to the counties containing such a city or twin cities, contiguous counties are included in the SMSA if they are socially and economically integrated with the central city. The St. Louis SMSA, for example, includes the four southwestern Illinois counties which formed the field test area for the Division's MIS during the first year of this project (see Figure III-1).

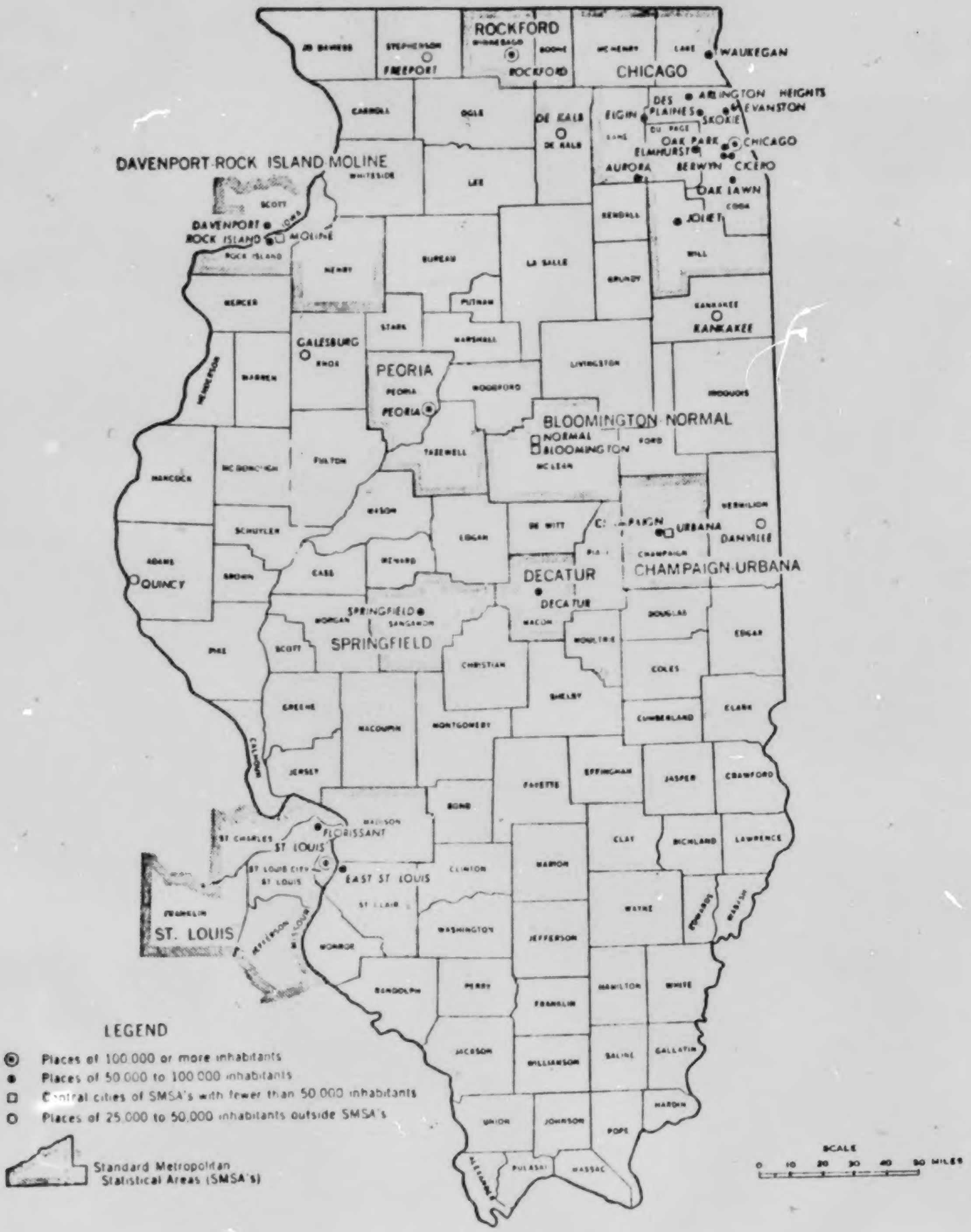
Regional Planning Commissions

Illinois has about 15 regional planning commissions which exist for the purpose of physical, economic, manpower and environmental planning. Regions usually are established when several county boards endorse a commission and apply for federal funds disbursed by the Illinois Department of Local Governmental Affairs. The Northeastern Illinois Planning Commission in the Chicago SMSA is large enough to apply for funds directly to the U.S. Department of Housing and Urban Development. The Southwestern Illinois Metropolitan and Regional Planning Commission in Collinsville was established by county approval and a special act of the Illinois General Assembly.

Each commission is designed to facilitate the collection and use of census data and other information needed for planning. Regions are not administrative; rather they provide information to help local units of government serve the needs of people. Not all parts of the state are served by regional planning commissions. The region served by Southwestern Illinois Planning includes seven counties: Bond, Clinton, Madison, Monroe, Randolph, St. Clair and Washington. The seven counties are not defined as a single social or economic unit, but rather as an area "which exhibits a strong degree of commonality of features such as physiography, economic interdependencies and mutual physical and economic problems."[1]

FIGURE III-1

ILLINOIS STANDARD METROPOLITAN STATISTICAL AREAS


ROCKFORD
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BOONE
ROCKFORD
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STEPHENSON
FREEPORT
MC HENRY
LAKE
WAUKEGAN
CHICAGO
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OGLE
DE KALB
DE KALB
ELGIN
DES PLAINES
ARLINGTON HEIGHTS
EVANSTON
SKOKIE
KANE
DU PAGE
OAK PARK
CHICAGO
ELMHURST
AURORA
BERWYN
CICERO
OAK LAWN
COOK
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WHITESIDE
LEE
SCOTT
IOWA
DAVENPORT
ROCK ISLAND
MOLINE
ROCK ISLAND
KENDALL
JOLIET
HENRY
BUREAU
LA SALLE
WILL
GRUNDY
PUTNAM
MERCER
KANKAKEE
KANKAKEE
STARK
MARSHALL
GALESBURG
KNOX
HENDERSON
WARREN
PEORIA
PEORIA
PEORIA
LIVINGSTON
WOODFORD
IROQUOIS
BLOOMINGTON-NORMAL
NORMAL
BLOOMINGTON
MC LEAN
FORD
FULTON
TAZEWELL
HANCOCK
MC DONOUGH
MASON
VERMILION
SCHUYLER
DE WITT
LOGAN
CHAMPAIGN
URBANA
DANVILLE
PIATT
CHAMPAIGN
ADAMS
QUINCY
BROWN
CASS
MENARD
DECATUR
CHAMPAIGN-URBANA
DECATUR
MACON
SPRINGFIELD
MORGAN
SANGAMON
SPRINGFIELD
DOUGLAS
MOULTRIE
EDGAR
PIKE
SCOTT
CHRISTIAN
COLES
SHELBY
GREENE
MACOUPIN
MONTGOMERY
CUMBERLAND
CLARK
CALHOUN
JERSEY
FAYETTE
EFFINGHAM
JASPER
CRAWFORD
BOND
MADISON
FLORISSANT
ST CHARLES
ST LOUIS
CLAY
RICHLAND
LAWRENCE
ST LOUIS CITY
ST LOUIS
EAST ST LOUIS
CLINTON
MARION
ST CLAIR
FRANKLIN
ST. LOUIS
JEFFERSON
WAYNE
EDWARDS
WABASH
WASHINGTON
JEFFERSON
MONROE
RANDOLPH
PERRY
FRANKLIN
HAMILTON
WHITE
LEGEND
Places of 100,000 or more inhabitants
Places of 50,000 to 100,000 inhabitants
Central cities of SMSA's with fewer than 50,000 inhabitants
Places of 25,000 to 50,000 inhabitants outside SMSA's
Standard Metropolitan Statistical Areas (SMSA's)
JACKSON
WILLIAMSON
SALINE
GALLATIN
HARDIN
UNION
JOHNSON
POPE
ALEXANDER
PULASKI
MASSAC
SCALE
0 10 20 30 40 50 MILES

Source: Illinois Bureau of the Budget

Comprehensive Employment and Training Act (CETA) Prime Sponsors

Every local governmental unit of 100,000 population or more can submit an application to the U.S. Department of Labor for CETA funds to offer comprehensive manpower services. As of June 1, 1976, twenty CETA prime sponsors were in Illinois. In some cases, several counties join to form a CETA prime sponsor when their combined populations exceed 100,000. The remainder of the state is served by the Governor's Office of Manpower and Human Development.

State Agencies

Many state agencies such as the Governor's Office of Manpower and Human Development, the Illinois Office of Education, the Illinois State Employment Service, and the Illinois Department of Business and Economic Development divide the state into regions for administrative, political or regulatory convenience. Each of the above named agencies' boundaries are described below.

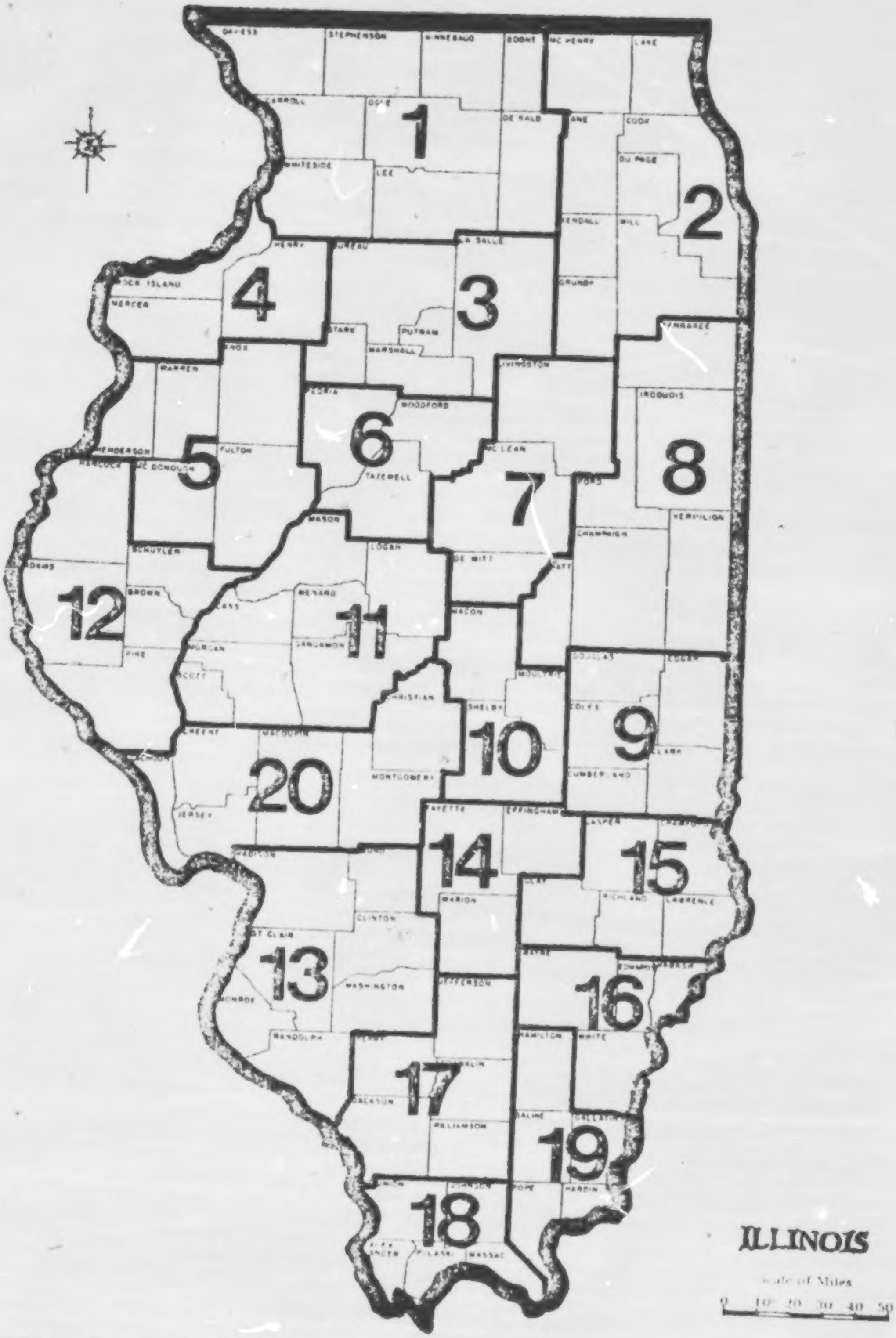
1. Twenty Manpower Planning Regions have been defined by the Governor's Office of Manpower based on state planning regions specified by the Illinois Bureau of the Budget. These regions were established in an attempt to standardize units based on similar economic conditions, commuting areas and labor markets. Although these regions approximate economic areas of the state, some concessions had to be made to local political conditions in their formation. (see Figure III-2)

2. Six Illinois Office of Education regions have been defined to simplify assignment of field staff working with local school districts. When the Division expanded the MIS field test in 1975-76 to 15 counties, this project and the region for the Vocational Education Consortium included all of IOE Region Five and Marion and Fayette counties from Region Six. (see Figure III-3)

3. Seven regions have been defined by the Illinois Department of Business and Economic Development to allocate field staff within the agency to liaison roles with local units of government. These seven regions determine geographic areas of responsibility for field representatives of the agency. (see Figure III-4)

FIGURE III-2

MANPOWER PLANNING REGIONS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Scale of Miles
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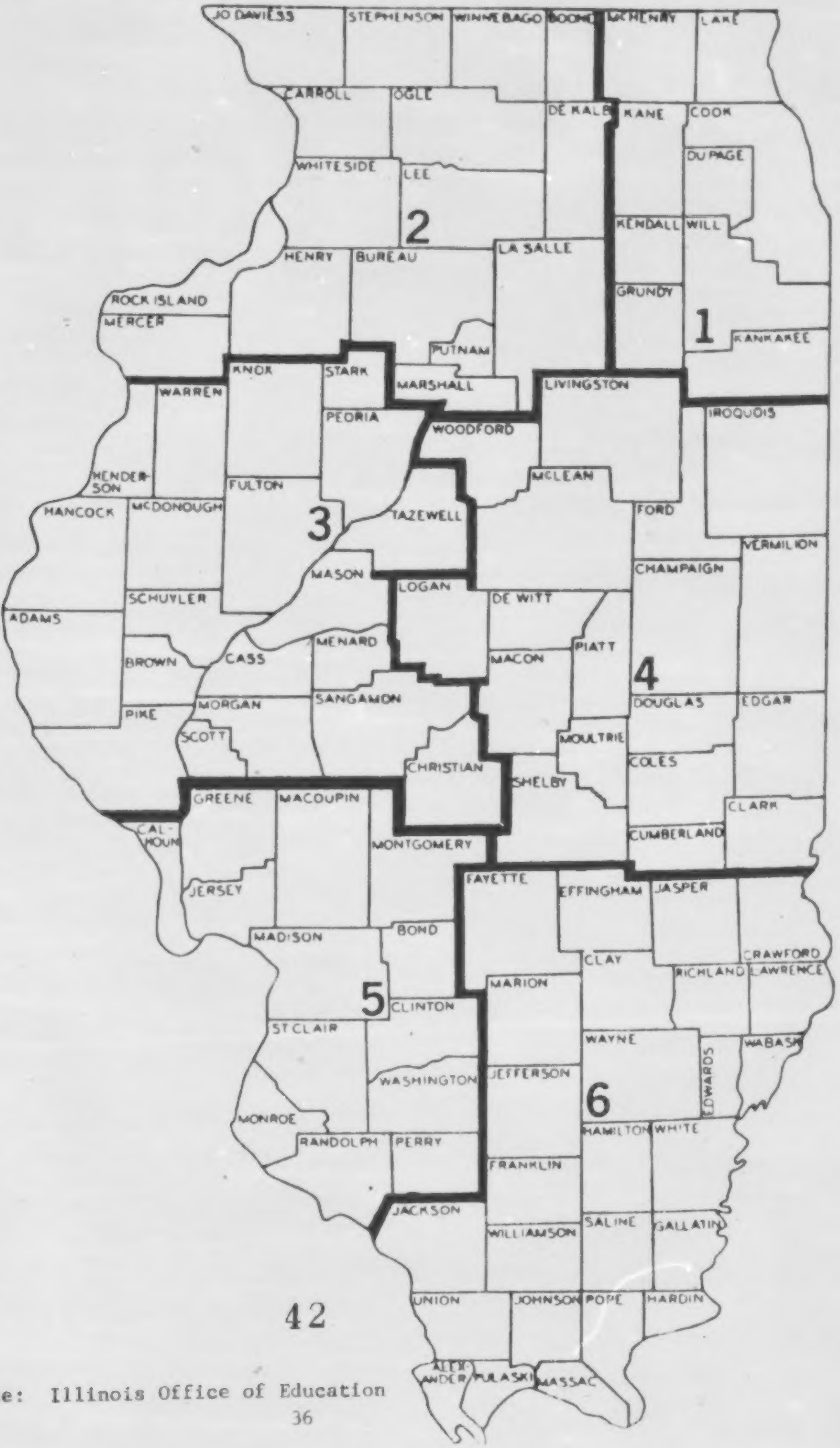
Source: Governor's Office of Manpower and Human Development

FIGURE III-3

ILLINOIS OFFICE OF EDUCATION RECOGNITION AND SUPERVISION REGIONS



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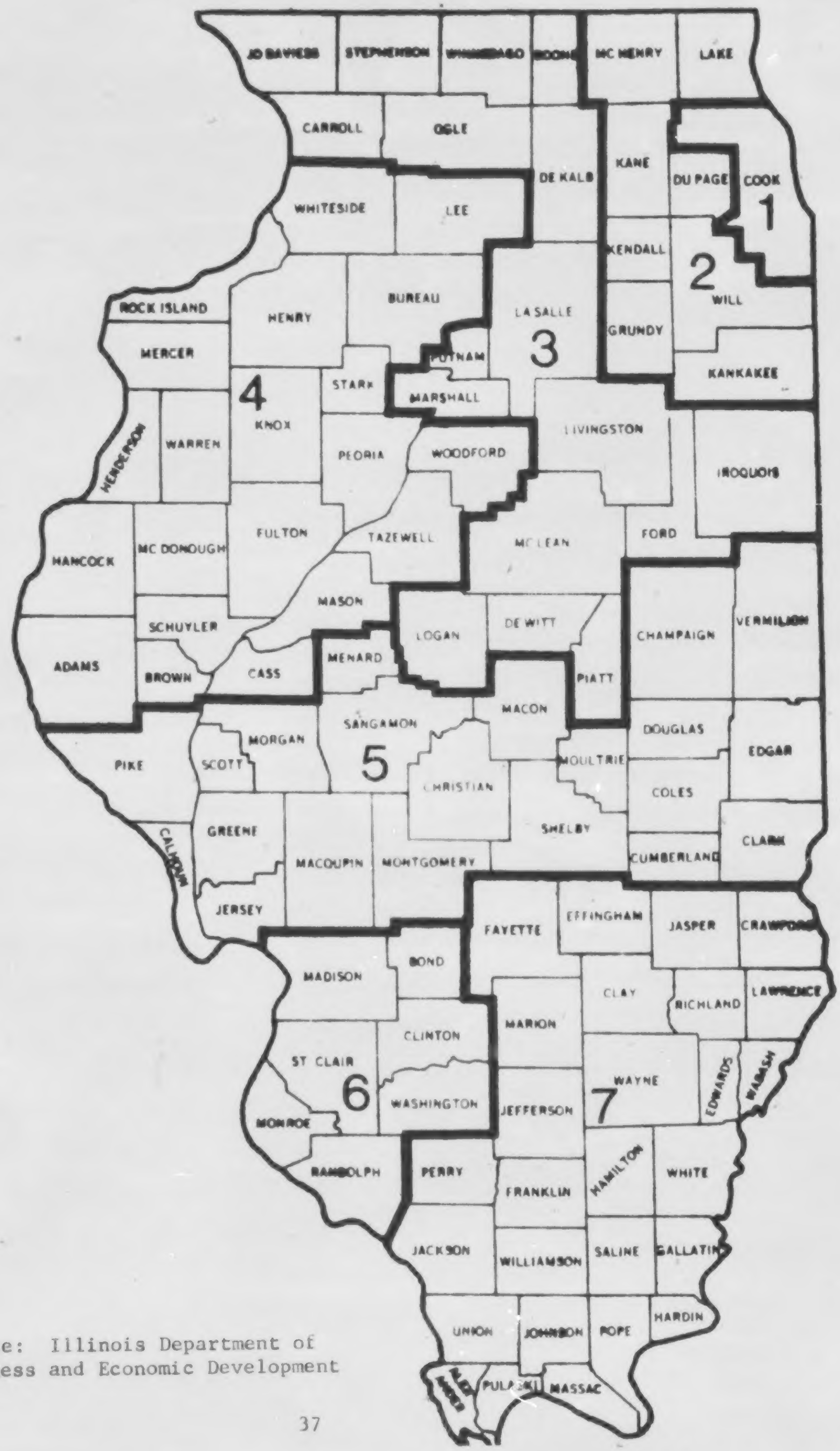
Source: Illinois Office of Education

FIGURE III-4

ADMINISTRATIVE UNITS--DIVISION OF INDUSTRIAL DEVELOPMENT
DEPARTMENT OF BUSINESS AND ECONOMIC DEVELOPMENT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Source: Illinois Department of
Business and Economic Development

4. The Illinois State Employment Service is part of the federal-state system funded federally to provide for the payment of unemployment compensation and the administration of local employment security offices. Although no formally defined regions exist, there is an attempt to locate employment security offices to fit the commuting and residential patterns of workers in Illinois. Figure III-5 locates the employment service centers in the state; Figure III-6 represents the commutation patterns of workers in the state.

Local Education Agencies

The boundaries of education regions are established through enabling legislation of the Illinois General Assembly, with approval of registered voters in each region also required in most cases.

1. Secondary school districts. As of June 1, 1976, there were 129 secondary school districts (serving grades nine through twelve in most cases) and 446 unit districts (serving grades kindergarten through twelve) in Illinois. The boundaries of local school districts can be changed only through referendum. The 15 counties in the MIS field test during the second year of this project included 72 secondary school or unit districts.

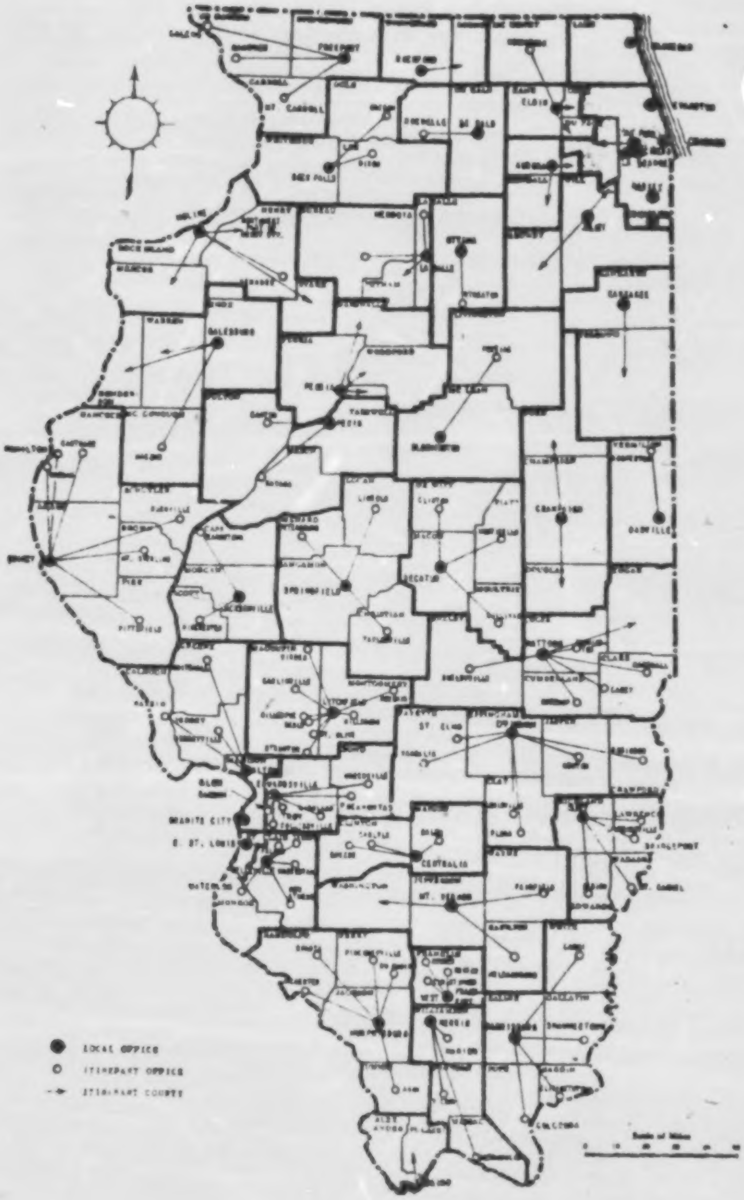
2. Area Vocational Centers. There are 29 operating area vocational centers, each established by local referendum. The boundaries tend to coincide with those of the participating secondary school districts whose students may enroll in area vocational center programs.

3. Community college districts. There are 39 public community college districts in Illinois. Boundaries of each district were established through local referenda and approval of the Illinois Community College Board.

4. Educational service regions. As of June 1, 1976, there were 78 educational service regions with a minimum population of 16,000. Each region consists of a single or multi-county area with an elected superintendent as chief administrator. By 1977, the regions must have a minimum population of 33,000 under legislation approved by the Illinois General Assembly; this is expected to reduce the number of regions to about 50.

FIGURE III-5

ILLINOIS STATE EMPLOYMENT SERVICE CENTERS


FREEPORT
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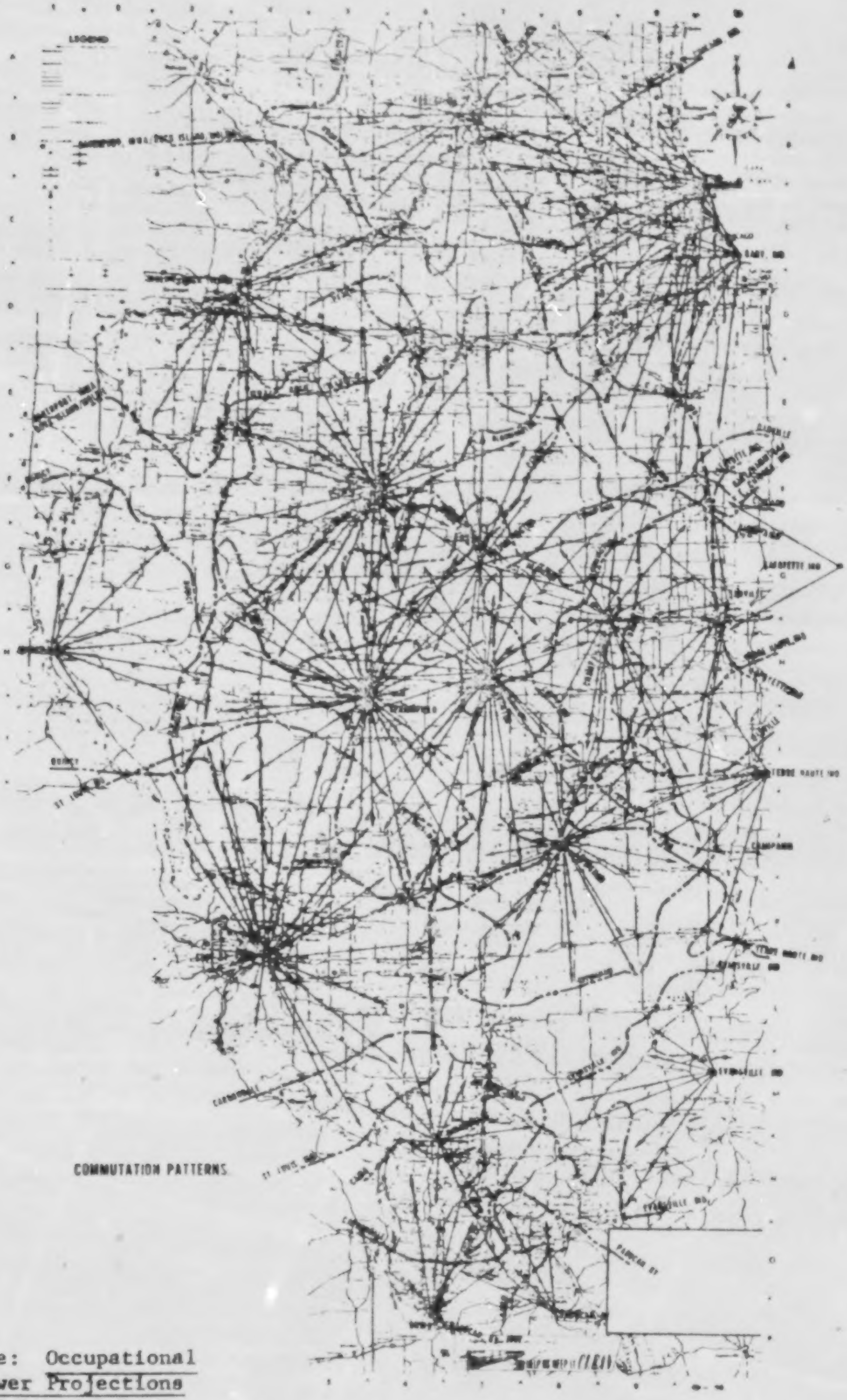
GALESBURG
PEORIA
PEKIN
BLOOMINGTON
CHAMPAIGN
DANVILLE
DECATUR
SPRINGFIELD
JACKSONVILLE
QUINCY
MATTOON
GRANITE CITY
E. ST. LOUIS
CENTRALIA
MT. VERNON
LOCAL OFFICE
ITINERANT OFFICE
ITINERANT COUNTY

Source: Illinois State Employment Service

FIGURE III-6

ILLINOIS COMMUTATION PATTERNS


LEGEND
LAFAYETTE IND
TERRE HAUTE IND
COMMUTATION PATTERNS

Source: Occupational Manpower Projections Methodology, Vol. 2
Springfield: State of Illinois, 1976, 47.

Local Government

In addition to local educational units of government, there are counties, townships, cities, villages and service districts. Counties and townships were the original subdivisions of the state. Cities and villages can be incorporated through a process that begins with a petition to the Secretary of State to reserve a name for the proposed unit through hearings and finally by election. In addition, there is a plethora of special service districts in Illinois due to the limit of bonded indebtedness imposed by law. Special service districts exist for parks, garbage collection, animal or pest control, mosquito abatement, water purification, flood control, pollution abatement, waste treatment and transportation.

Criteria for Economic Development Regions

There are literally hundreds of administrative districts and functions which overlap and challenge systematic planning for regional development. In order to evaluate the effectiveness of a region for economic development, the following criteria are proposed:

1. Coincidence of boundary lines such that information would be available for planning and administrative overlap would be minimized.
2. A rational economic region that contains raw materials; plant facilities, markets, a means of transporting raw material,goods and workers, water resources and a skilled workforce.
3. Physical size that permits communication and commutation.
4. Educational resources, especially vocational education, which permit a continuing and sufficient supply of labor.
5. A sense of community or sense of identification within the region.

Application of Criteria to Existing Regions

In applying the five criteria for an economic development region to the aforementioned regions, it can be seen that no existing regional organization satisfies all five criteria. Figure III-7 presents a yes no or maybe designation for each criterion and region. As an example of a rationale for each response, the application of criteria are presented below for four types of regions.

FIGURE III-7

ANALYSIS OF EXISTING ILLINOIS REGIONS BY PROPOSED CRITERIA FOR VOCATIONAL EDUCATION PLANNING COUNCILS

	Information Base	Economic Region	Commutation and Communication	Educational Resources	Sense of Community
Regional Planning Commission	Yes	Maybe	Yes	Maybe	No
SMSA	Yes	Maybe	Maybe	Maybe	Yes
CETA	Maybe	Maybe	Maybe	Maybe	Maybe
IOE	Yes	Maybe	No	Maybe	No
Manpower	Yes	Yes	Yes	Maybe	Maybe
ES	Yes	Maybe	Yes	Maybe	Maybe
Business and Economic Development	Yes	Maybe	No	Maybe	No
School Districts	Maybe	Maybe	Yes	Maybe	Maybe
AVC's	Maybe	Maybe	Yes	Maybe	Maybe
Community Colleges	Maybe	Maybe	Yes	Maybe	Maybe
ESR's	Maybe	Maybe	Yes	Maybe	Maybe
Cities and Villages	Maybe	Maybe	Yes	Maybe	Yes
Townships	Maybe	Maybe	Yes	Maybe	Maybe
Counties	Yes	Maybe	Yes	Maybe	Maybe
Special Districts	Maybe	Maybe	Maybe	Maybe	No

Illinois Office of Education Regions

Information Base: The regions lend themselves to information development because information can be aggregated by county.

Economic Region: It is possible that the necessary factors of production are available, but figures have not been compiled on the basis of the regions.

Commutation and Communication: Some regions contain as many as 24 counties. Such an area may be unwieldy for this criterion.

Educational Resources: It is very likely that each region, with the possible exception of Region VI in Southern Illinois, contains adequate educational resources to operate an efficient labor market.

Sense of Community: The IOE regions offer little opportunity for the citizens to identify with the region. Few people outside of educational administration even know about the regions.

Regional Planning Commissions

Information Base: Where viable commissions exist, regional planning districts are ideal for information development; however, not all areas of the state are served by regional planning commissions.

Economic Regions: Although one criterion for the formation of regional planning commissions is the existence of a rational economic area, it usually is assumed by definition and political negotiation rather than through specific economic analysis.

Commutation and Communication: The regions are usually no larger than seven or eight counties--not too large for efficient communication and movement of workers.

Educational Resources: Since these regions are not formed on the basis of educational resources, some may lack adequate resources.

Sense of Community: The planning regions do not assure a sense of community. The Southwestern Illinois Planning Commission, for example, may not find its plans welcomed equally in counties which consider themselves a part of the region and those which do not.

Counties

Information Base: Large amounts of census information are available by county. Vital statistics are compiled by county clerks.

Economic Region: Counties can be highly important economic units; however, some have little or no economic standing as separate entities. They do have important governmental and political standing especially with respect to unincorporated areas.

Commutation and Communication: Counties are extremely varied in population and area, though small enough geographically to allow for communication and travel of workers. However, these are complicated by population density variation such as that in Cook County and the Chicago SMSA in contrast to rural counties such as Calhoun or Washington in the MIS field test area.

Educational Resources: Many counties do not have the educational resources to provide the breadth and depth of skills needed in an efficient labor market.

Sense of Community: Identification with counties seems to vary significantly from county to county, dependent largely on size, population and resources.

Manpower Planning Regions

Information Base: Information available is especially relevant for vocational education and labor market planning. For example, the Division joined with the Illinois Bureau of the Budget, the Governor's Office of Manpower and Human Development, and the Illinois State Employment Service in funding and completing a three-volume update of Illinois labor market information in Occupational Manpower Projections, 1975-1981. The three volumes present census-based projections of demand for the 20 manpower planning regions in the state. While the data have limitations (see Volume 2: Methodology, of the three-volume set), they do represent the best available projections of occupational need for the state as represented in the 20 regions.

Economic Region: The concept of viable economic region was considered in the establishment of the regions.

Commutation and Communication: Manpower Planning Regions have a population of not less than 100,000 inhabitants, but are generally small enough to allow communication and movement of workers.

Educational Resources: Since educational resources were not a prime consideration in the establishment of Manpower Planning Regions, some regions may not have adequate educational resources to facilitate the operation of an efficient labor market.

Sense of Community: Cultural links were considered in forming the regions, but that does not guarantee that residents of each would identify their community in the manner defined by the manpower planning region in which they live.

Boundaries of Economic Development Regions

In the working paper submitted last year, we recommended that Manpower Planning Regions be adopted as model boundaries for regional development. It was suggested that the regions met the criteria of economic and social cohesiveness. Also suggested was that it would be efficient to rely upon established regions to help eliminate the problem of overlapping jurisdictions.

The work conducted during the second year of the project has led to a reconsideration of that recommendation. Since boundaries must be negotiated in a political bargaining process, it makes more sense to encourage regional councils to negotiate the boundaries. Division staff also expressed concern about the number of Manpower Planning Regions, especially considering the size of the Division staff and the resources available.

Another important consideration is the role of the state in the formation of regional councils. We recommend that the state role be as a catalyst and source of encouragement and support for the creation of a network of regional planning councils, rather than the final authority in defining regional boundaries. Later chapters in this report detail the educative and social process through which we believe regional councils are best formed (see Chapter Six especially), and our recommendations for state, Division and local roles in determining the size and shape of each region (see Chapters Ten and Eleven).

Notes

1. Population and Economy of the Southwestern Illinois Region. Collinsville, IL: Southwestern Illinois Metropolitan and Regional Planning Commission, 1974, p. 2.1.

CHAPTER FOUR

EDUCATION AS AN INSTITUTIONAL LABOR MARKET INTERMEDIARY

Education has long been regarded as one of the paths to higher skilled and higher paid occupations. The unprecedented growth of colleges and postsecondary vocational and technical training during the 1960s was stimulated, at least in part, by the expectations of many students and their families that such training would lead to better jobs. This assumption seemed especially valid while college graduates of any kind were regarded in short supply and the economy of the nation was providing new opportunities for employment. Within the past five years, however, neither college nor specific vocational skill training has offered individuals guarantees of employment upon completion of their training.

One result of this shift in demand for college graduates has been a growing emphasis on enabling individuals to plan their educational and training courses in closer relation to anticipated opportunities for employment after training. Yet most students must select their training and, in effect, shape their life patterns on the basis of "badly informed assumptions and often misleading information about the work prospects ahead of them, which depend not only on employment opportunities but also on the number of workers being trained for each occupation. The future health of the society as well as the lives of these young people will be affected vitally by the consistency of those career choices with the needs and prospects of the economy" (Wirtz and Goldstein, 1975: 19).

The assumption that such choices are consistent with future opportunities is among the most fundamental reasons for linking education to labor market operations. People evaluate their alternatives for schooling and work in terms of both direct and indirect costs and benefits of such training in contrast with immediate full-time entry into work. The decision to defer full-time work is often based on the long-term benefits expected from deferring income (the largest indirect cost of training) plus the direct expenses of going to school. Interest in vocational education and occupational training traditionally has been rooted in the mutually supportive objectives of (1) improved economic strength of the region through better use of the talents available in the labor force and (2) improved economic and social well-being of individuals as training enables them to respond to opportunities within the labor markets in which they live and work. Both depend on the achievement of the other through the concept of investment in human resources as a factor in the economic development and labor market efficiency of the region.

Investments in education and training are perhaps the most basic reflection of faith in the value of human capital. Appropriate selection of education and training offers the opportunity for significant contributions to the kind of economy a region may develop or sustain, and the opportunities individuals may aspire to or attain. Efficient labor market operations, however, require that both individual choices and institutional planning of occupational education programs be based on accurate understanding of employment opportunities within a region. Several factors may contribute to education's role in such planning.

Perhaps the most difficult dimension of this relationship between education and work is information about present and future opportunities for training and employment. The decision to continue schooling or focus it in special content areas often parallels the individual's knowledge of employment opportunities which may follow completion of such training. Employers, however, have little knowledge or participation in developing educational programs and training in vocational education, and educators seldom work with sufficient understanding of the dynamic nature of the labor market and its impact on employers.

The absence of firm bonds between educational institutions (the investment) and the labor market (the returns on that investment through employment) has placed special burdens on people who bring information about jobs and careers to life for individuals. These labor market intermediaries, or "gate-keepers," attempt to adapt labor market needs (jobs) to individual talents of people in the labor supply of the region. But public and private agencies are not always able to meet this demand. Teachers and counselors often are ill-prepared by their experience or training to provide needed insight and information about working outside schools. One reason students may have been directed so carefully to college preparation and teaching -- even in the face of local job shortages for people presenting such skills -- is that such training reflects the experience of counselors and teachers. People can share only what they know. Few educators have the benefit of experience or knowledge of working conditions or career opportunities in the range of jobs available in local labor markets. Community and employer resources in this area are largely undeveloped and underutilized. A major role for education may be to mobilize the resources of business, labor, government, industry, parents and the community to create and preserve viable career options and information for individuals in the labor market of the region.

Another factor in efficient labor market operations rests in the growing commitment of educators to helping students prepare for and begin the transition from school to work. Traditional patterns of school and work are changing as youth combine entry into the labor market with their educational preparation for careers. But as with virtually all efforts in American education, resources and knowledge to help individuals make these transitions and choices in the labor market are fragmented. Each school district plans vocational education independently of neighboring schools, community colleges, private sources of training and the needs of employers. We believe that the school must take a more active role in communication and coordination before its role as an effective labor market intermediary will improve.

The time seems ripe for development of a more rational relationship between education and work, but educators are not likely to be able to perfect such a relationship alone. Schools control neither jobs nor access to information about employment opportunities. The solution rests in the formation of new alliances to enable educators to take a more effective, active role in the labor market. The process must begin with recognition of the elements of occupational choice as students consider future employment opportunities. At the same time, a climate for coordination among vocational educators must be nurtured before collaborative planning with employers will improve market operations.

Occupational choice has long been recognized as an important part of adult life. Menninger (1942: 138) ranked work first "of all the methods for absorbing the aggressive energies of mankind in a useful direction," and added that "perhaps next to the choice of a marital partner, (vocation) is the most important and far-reaching decision made by the individual." Freud (1961: 27) also ranked work high among the pursuits of man, added that "professional activity is a source of special satisfaction if it is freely chosen." He also recognized the inefficiency of most European and western labor markets, noting that "the great majority of people work only under the stress of necessity."

Studies of American youth have examined the importance of vocational choice and preparation since Terman (1930: 139) found in his Genetic Studies of Genius that youth used vocational choice to help focus their talents, and work experience as an avenue to achieve success. Gesell (1956: 242) found adolescents ready and eager for work as an aid to occupational choice, and Havighurst (1962) reported that youth in River City matured through work:

> They learn habits of character as well as vocational skills while actively on the job. For noncollege youth, work experience is a kind of informal apprenticeship lasting one to five years. College youth come to their first full-time job with more maturity, but they still have much to learn from their work experience. (1962: 165-166)

Work during adolescence also helps youth narrow their choices through exploration. Vocational training in secondary school is part of their effort to gather information about different types of work and the skills required for each. School life offers little evidence of the demands of employers and jobs. Keniston (1965: 261) finds adolescents having much difficulty evaluating career opportunities. "From among literally tens of thousands of job possibilities, the student must select the one which seems best suited to his talents, motives, needs, feelings, values and background . . . in relative ignorance of what most of these careers involve."

Much evidence also exists to emphasize the importance of tentative choices about occupational goals during adolescence. Erikson (1963: 262) offers the strongest argument when he poses occupational choice as the most potentially disruptive task of adolescence:

> In most cases, it is the inability to settle on occupational identify which disturbs individual young people.

But how do individuals explore alternatives and consider choices about work? The first attempt to explain the parameters of occupational choice also may represent one of the best. Parsons (1909:5) proposed a balance of experience and education to assist adolescents with three steps in coping with the demands of a "wise choice of a vocation:

1. A clear understanding of yourself, your aptitudes, abilities, interests, ambitions, resources, limitations, and their causes;

2. A knowledge of the requirements and conditions of success, advantages and disadvantages, compensation, opportunities and prospects in different lines of work.

3. True reasoning on the relations of these two groups of facts."

Parsons applied his model of mingling job- and career-related skill training with education to help young people clarify their interests, skills and opportunities.

The best contemporary effort to describe the process of occupational choice has emerged from more than 30 years of research in the Conservation of Human Resources Project at Columbia University. Ginzberg (1950) and his colleagues offered the first attempt at a theory of occupational choice. Based on more than 20 years of research since introduction of their initial theory, Ginzberg (1972: 169-172) reformulated his view of the process in terms very similar to the elements identified in Parsons' principles of choice nearly 70 years ago:

> Occupational choice is a lifelong process of decision-making in which the individual seeks to find the optimal fit between his career preparation and goals and the realities of the world of work.

Each of these perspectives complements the concept of an efficient labor market represented in this study. Ginzberg's concept of an individual's career preparation and goals emerges from Parsons' emphasis on self-awareness; both are ways of describing the characteristics of an individual in the supply of labor for a region. Similarly, Ginzberg's concern with the "realities of the world of work" is present in Parsons' focus on knowledge of the requirements and conditions of various occupations; each represents the need for information about the opportunities present in the demand for workers within a labor market. Finally, what Ginzberg describes as "optimal fit" and Parsons identifies as "true reasoning" between supply and demand information reflect the role of intermediaries in the labor market model underlying this study.

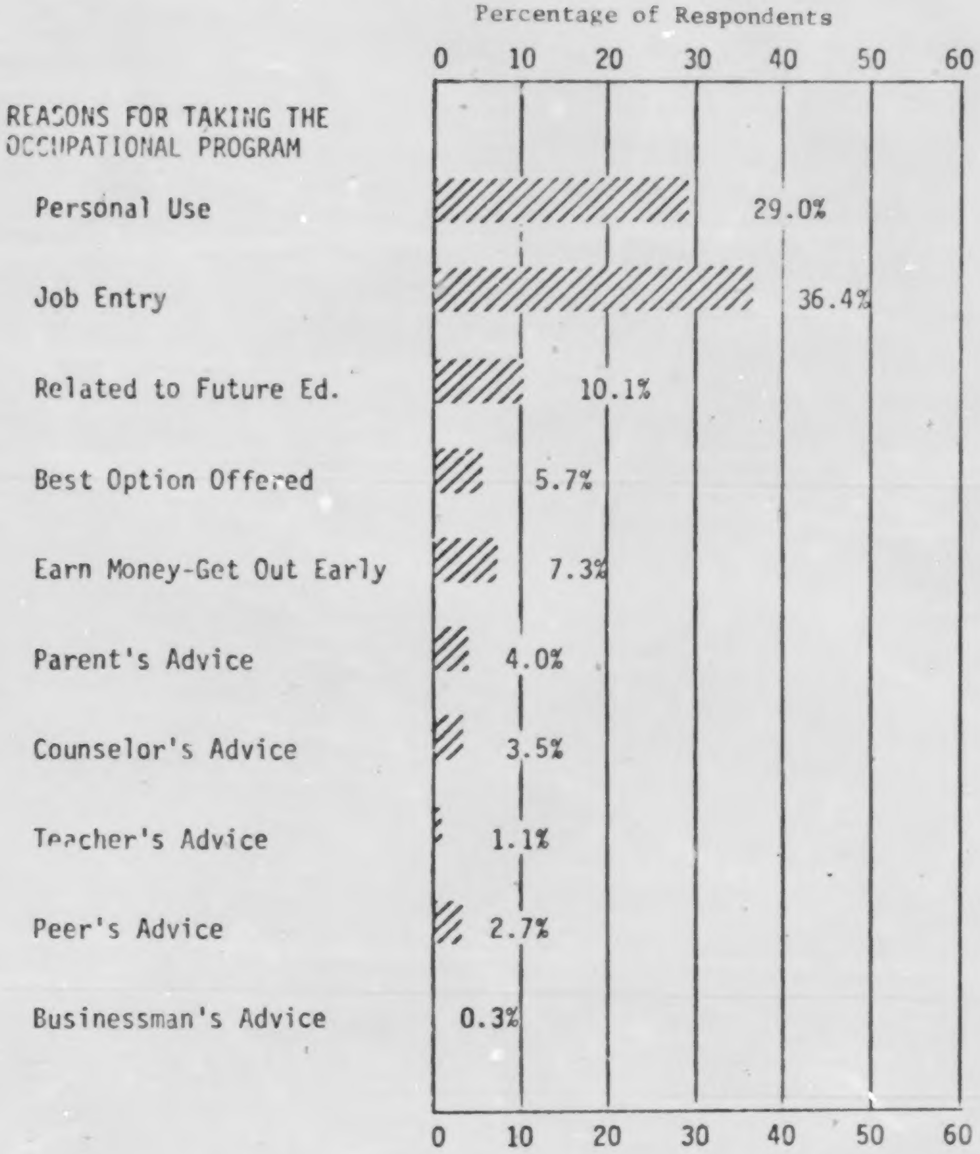
People need information to make informed, careful decisions about occupational alternatives, but few students consider these alternatives in a vacuum. Many already have decided to live and work in the region in which they have attended school. Others have begun to plan their lives around occupational goals which may require moving to another region where opportunities for employment will exist. Unfortunately, neither group of students is likely to be satisfied -- or able to make informed choices -- without appropriate information about opportunities and conditions of work within those occupations in the labor markets of interest to them.

Vocational education planning needs to be based on such information as well. Few students are sufficiently well informed about opportunities for work within occupations related to vocational education programs, but that does not deter them from enrolling in such courses. First, they have little information about any specific careers or the "realities of work" within the labor markets in which they expect to live and work. Second, many students are ill-prepared by schools to consider the relationship between schooling and work. For most, education and work are regarded as entirely independent, unrelated events in their lives. Finally, the incentives for students to enroll in vocational education are not limited to the possibility of entering the specific careers related to vocational training available in their local high schools. Many regard vocational education as an opportunity to learn about and develop skills related to jobs they may hope to qualify for later, but others enroll for personal reasons, the opportunity to earn money, the suggestions of counselors who may assist with course selection, parental pressure or the social benefits of enrolling in courses with their friends. Given the limited information with which to make such decisions, there is little reason to expect that enrollment in vocational education courses should imply a firm commitment to seek employment in related jobs when students leave school.

In the absence of vocational education planning in relation to local labor markets and the information to enable adolescents to make informed choices about future employment, it should come as no surprise that studies of vocational education graduates find little evidence that students are later employed in jobs related to their secondary school training. Eastern Illinois University documented this fact recently with a followup study of more than 2,500 occupational education graduates in Illinois. Evidence from a portion of that study is presented in Figure IV-1. More than one-third of the students surveyed entered high school vocational education training because they were interested in learning about jobs in that field. This should not be assumed to mean, however, that they were sufficiently well-informed about working conditions and job opportunities in those careers to know their specific occupational goals at the time they enrolled in such courses. It is more likely that many used vocational education courses to gather some of the information which later enabled them to make such decisions.

Perhaps this fact is still more clearly represented by the fact that nearly two-thirds of the Eastern Illinois University survey respondents did not include job entry as a reason for enrolling in vocational education programs. Almost one-third indicated that their choices were made for "personal reasons" such as those discussed earlier. Ten percent indicated that their occupational training was related to future educational plans, with the remainder distributed among such influences as earning money, convenience and the advice of others. Another critical factor reflecting their general lack of information for informed choices is the fact that just .3 percent relied upon the

FIGURE IV-1



Source: Eastern Illinois University
If I Tell You, Will You Listen?
Followup Report on Illinois
"Class of '73", page 11.

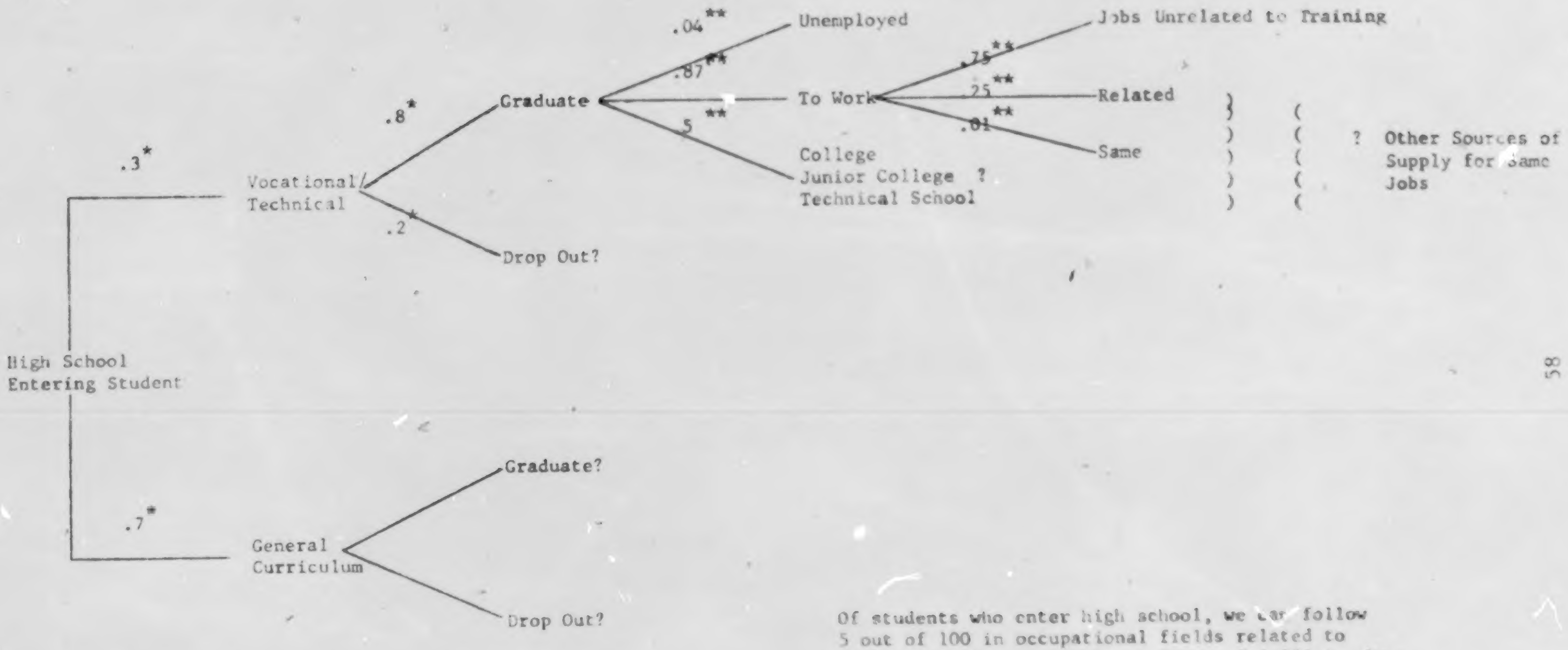
advice of employers in considering vocational education courses.

This should not lead to expectations that vocational education is a direct line to future employment. Further analysis of the Eastern Illinois University study presented in Figure IV-2 confirms this through path analysis of occupational education graduates surveyed. Only 1 percent of the graduates surveyed were employed in the same occupational area they had trained for in high school. Another 27 percent were employed in jobs related to their training, and nearly 75 percent worked in jobs unrelated to their vocational education courses in high school. Similar results were reported in a study of Wisconsin graduates of occupational education programs (Somers, 1971: ii). Three years after graduation, only 25 percent of the graduates were employed in the field in which they studied in high school, although a larger number of post-secondary and community college vocational program graduates were employed in their fields. Many of this latter group, however, also moved to different occupational areas after initial experience in those fields.

None of these studies should be cause for alarm. We have long known that youth require a period of job-hopping, or intensive job search and information gathering, prior to settling down into long-term employment. The process of work establishment (Freedman, 1969) is beginning earlier for youth who work during schooling rather than only after it. Rodgers (1975: 83) found that more than 90 percent of the students in a middle class suburban community had worked -- and more than 70 percent of them in two or more jobs -- by the beginning of their senior year in high school. Thus, intensive job exploration of the conditions and opportunities for employment in various types of careers is beginning during high school, rather than after it.

FIGURE IV-2

Paths of Student Choice, Showing Decision Points and Information Gaps


High School
Entering Student
.3*
Vocational/
Technical
.8*
Graduate
.2*
Drop Out?
.04**
Unemployed
.87**
To Work
.5**
College
Junior College ?
Technical School
.75**
Jobs Unrelated to Training
.25**
Related
.01**
Same
? Other Sources of
Supply for Same
Jobs
.7*
General
Curriculum
Graduate?
Drop Out?

Of students who enter high school, we can follow 5 out of 100 in occupational fields related to their training; we can place 2 out of 1,000 in the same specific occupation they trained for.

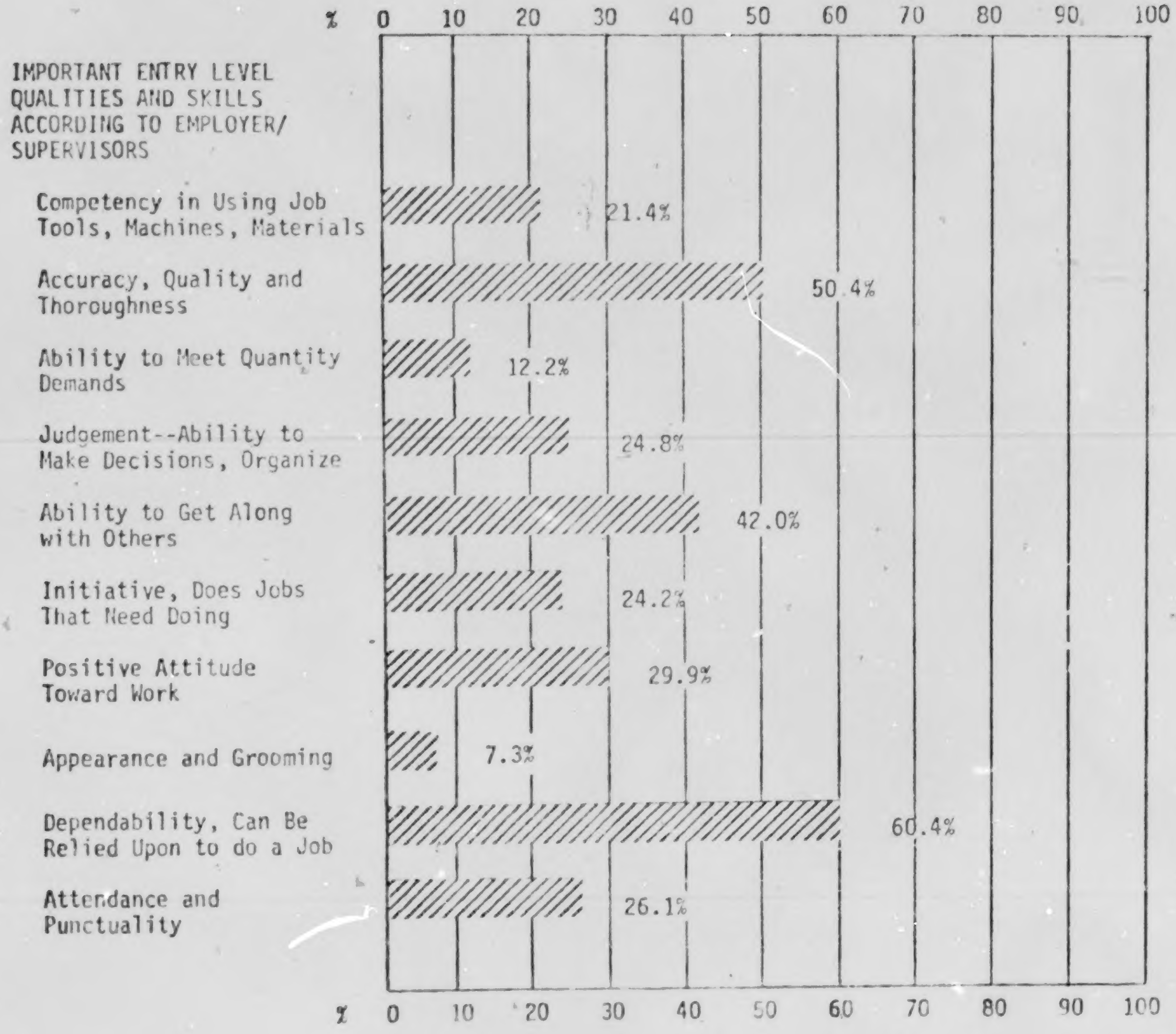
* Approximate figure

** From Eastern Illinois University survey, re. Illinois high school class of 1971

These patterns also are reflected in employer attitudes toward vocational education graduates. Figure IV-3 reports employer supervisors' assessments of the important skills and benefits of employing vocational education graduates. Sixty percent of the respondents valued dependability and reliability as the primary benefits, 50 percent cited accuracy and quality of work, 42 percent found vocational education graduates more able to get along with fellow employees on the job, and 30 percent found graduates presented positive attitudes toward work. In short, employers found vocational education graduates had better work habits and attitudes than other employees, and they valued these characteristics more highly than job-specific or occupationally related skill training.

The results of each of these assessments of vocational education and its present role in the labor market point to a critical need for accurate, reliable, locally derived information about employment opportunities within regional labor markets. Lecht (1974: 50-51) describes the limitations of macro-level data presently available, even for information updated to represent occupational projections for Illinois Mampower Planning Regions released early in 1976. The industrial structure of various regions and labor markets differ. National, state and regional projections based on macro data offer vocational educators guidelines and suggest trends, but they do little to facilitate planning or individuals career decision-making in response to local labor market opportunities and changes. Thus, the development of such information, the establishment of relationships with employers and representatives of industry, and the creation of a climate for collaborative planning are critical

FIGURE IV-3



Source: Eastern Illinois University
If I Tell You, Will You Listen?
Followup Report on Illinois
"Class of '73", page 11.

dimensions of the role of the school as an institutional labor market intermediary. Schools need to help parents, teachers, counselors and students understand the opportunities, requirements and conditions of employment within the region in which they live before they can expand their horizons to include knowledge of work which may require them to leave the region. The labor market intermediaries inside schools need to recognize when occupational and career goals will require students to adapt to limited opportunities, or require that they move to places or work under conditions in conflict with other important decisions in their lives. Our goal is to help vocational education become more responsive to the needs of people as they attempt to make better informed choices about where to live and work.

The importance of this intermediary role was especially clear one hot summer day as two members of the Northwestern project team stood on a downtown street in East St. Louis amid ample evidence of high unemployment -- boarded up windows, abandoned stores, idle people. Looking down the side streets, one could see the interstate highway leading across the mist of the Mississippi River into St. Louis, whose central business district represented thousands of possible jobs. But a local educator cautioned that this short trip did not seem practical to many of his students:

> People are not ready to make that trip. St. Louis is seen as a foreign and hostile land. There is not much here on the east side (of the river), but it is a known quantity our students prefer to the unknown over there.

We hope schools will take a more active role in expanding the horizons of students and intermediaries to recognize solutions to the problems of inefficiency in the labor market. Decisions to remain on the east side of the river would be far less devastating to individual lives if they were able to find and prepare for job opportunities in the Metro East area, but information is equally poor on both sides of the river. What we explore in this study is a more active role in planning vocational education as a resource for improved economic development and individual career choice in a region. Part II will examine that region and the process of forming a regional vocational education planning council in southwestern Illinois. Part III reviews the procedure and results of a locally-based survey of such employment opportunities and training needs of the region. Part IV concludes this report with recommendations for implementing changes which enable schools more fully to serve in their role as institutional labor market intermediaries.

PART II

PLANNING FROM THE SCHOOL PERSPECTIVE

Conceptual definitions of planning vocational education programs from a regional labor market perspective help specify the purpose of planning in the context of this investigation, but they do little to demonstrate how such planning may actually occur. The goal of the next three chapters is to review the conditions under and the process through which educators in the 15 southwestern Illinois counties in this study have addressed these issues.

Chapter Five examines the economy and labor market conditions of the region to help the reader understand the resources and opportunities present in the 15 counties included in the Division's MIS field study. Demographic and labor force data are reviewed for three alternative definitions of the vocational education planning region.

Chapter Six describes the process through which the Southwestern Illinois Vocational Education Consortium emerged during the two years of this study. Special attention is devoted to communication tools and channels required to facilitate development of regional vocational education planning councils.

Chapter Seven concludes this portion of the report with a review of present planning practices in vocational education in the region. This analysis is based on results of several workshops conducted during the first 15 months of the Vocational Education Planning Project.

CHAPTER FIVE

ECONOMIC DEVELOPMENT OF THE METRO EAST REGION

No history of the East St. Louis/Metro East region can begin without attention to the obvious role of the City of St. Louis in its economy and development. St. Louis developed as a transportation hub of the Midwest largely because of its location on the Mississippi and Missouri Rivers and near the north-south axis of the United States. The region naturally grew to become the second largest concentration of railroad and river terminal facilities in the nation.[1]

Southwestern Illinois also enjoyed the benefits of the water and transportation resources of the region, but residents on the east side of the Mississippi did not choose to focus on development of a central location for transportation and economic development. Illinois residents preferred smaller,independent communities, each competing with St. Louis and each other for industry and trade. Alton was the major trading center in Illinois in 1840, but the concentration of railroad crossings at East St. Louis and heavy industrialization as access to eastern markets grew reduced the Alton-Wood River area to a secondary role in the economy of the region.

The presence of these resources helped Madison and St. Clair counties grow to the second largest industrial center in Illinois, with the metal working industries the major contributor. Water for industrial growth has remained a major factor in the region's economy.

Madison and St. Clair counties have always been the centers of the southwestern Illinois region. The earliest white settlers in the region were Canadian missionaries who founded the village of Cahokia in 1682. In 1781, some of the men who had accompanied George Rogers Clark on a military expedition into Illinois in 1779 began to settle there on land given as payment for their service.

In 1790 General Arthur St. Clair designated a portion of the Northwest Territory, of which he was governor, as St. Clair County. The county then included nearly two-thirds of the present state of Illinois. St. Clair county was subdivided twice within the next thirty years to create Randolph and Madison counties; by 1821 the county's boundaries were substantially what they are today.

Madison County also began as a much larger region than it is today. When established in 1812, it ran east from the Mississippi River to the Wabash River in Indiana, and north to include parts of Wisconsin and Minnesota. Edwardsville was its center of government; the city is the third oldest in Illinois. By 1843 Madison County was defined substantially as it exists today, with most of the neighboring counties emphasizing agriculture as their primary source of employment. Coal mining became important to the economy of the region in the 1870's as industrialization stimulated a demand for coal reserves located in southwestern Illinois.

This history is reflected in the present character of the area. Manufacturing is the most important industry in the economy of the region, employing the largest proportion of people in the area. The majority of manufacturing employment in southwestern Illinois is located in western Madison and St. Clair Counties, near St. Louis and the ample supplies of water from the Mississippi. The largest industries of the region are primary manufacturers producing steel, base metal, glass and paper products. Coal reserves of more than ten billion tons represent the greatest potential for mineral resource mining in southwestern Illinois. These energy reserves already have begun to emerge as a potential stimulus for growth in the economy of the region as technology for the conversion of bituminous coal into cleaner forms of energy develops.

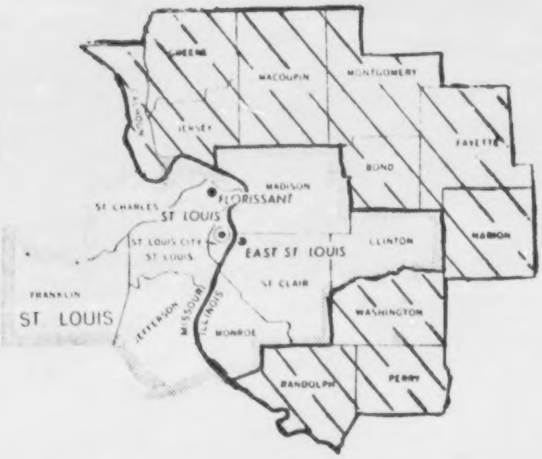
The Economy of the St. Louis SMSA

The first view of the economic and employment situation in the 15 Illinois counties in this study will examine the portion contained in the St. Louis Mo.-Ill. SMSA as represented in Figure V-1. The SMSA includes four Missouri counties and the four Illinois counties in the Division's MIS in 1974-75. The population of the eight-county SMSA rose 12.4 percent from 1960 to 1970 to just over 2.4 million residents. The city of St. Louis had a population of 622,000 in January of 1975 -- 18th largest in the nation. St. Louis was then reported as the second largest railroad center in the world, the second largest trucking center in the United States, and the busiest inland port on the Mississippi River. The labor force of the SMSA has grown from 950,000 workers in 1970 to just under 1,050,000 in mid-1973; the recession of 1974 and 1975 reduced the size of the labor force to just over 1,020,000 through most of 1975. This decline continued into early 1976 as the total work force of the SMSA fell to 1,007,900 in February of this year, down 15,600 from November of 1975.[2]

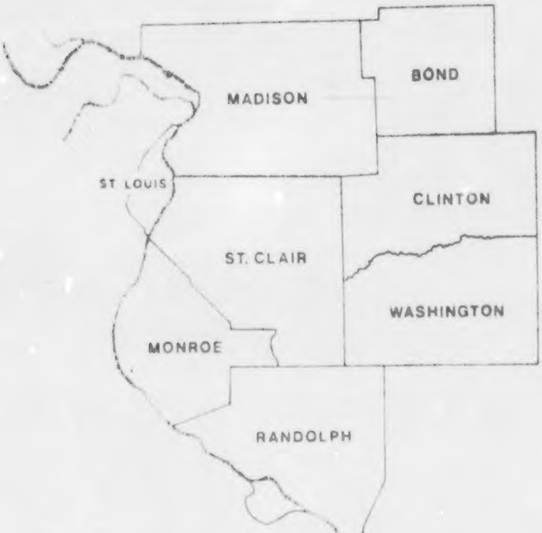
Figure V-1

Four-County 1974-75 MIS Field Test Area (Illinois share of St. Louis SMSA) ☐

Counties added to MIS in 1975-76 ▨


SCALE
0 10 20 30 40 50 MILES
GREENE
MACOUPIN
MONTGOMERY
CALHOUN
JERSEY
FAYETTE
BOND
MADISON
FLORISSANT
ST CHARLES
ST LOUIS
ST LOUIS CITY
ST LOUIS
EAST ST LOUIS
CLINTON
MARION
ST CLAIR
WASHINGTON
FRANKLIN
ST. LOUIS
JEFFERSON
MISSOURI
ILLINOIS
MONROE
RANDOLPH
PERRY

Seven-County Southwestern Illinois Planning Region


MADISON
BOND
ST LOUIS
CLINTON
ST. CLAIR
WASHINGTON
MONROE
RANDOLPH

Much of this decline in the labor force has been accompanied by similar patterns in total employment and steady increases in the unemployment rate during the past five years. Employment rose from 905,638 in January of 1970 to a peak of 983,202 in June of 1973 before falling below 925,000 early in 1975. Employment rose to more than 940,000 in mid-1975, and has remained below 950,000 since then. Meanwhile, unemployment has risen from under 40,000, or 4.1 percent, in fall of 1970 to nearly 90,000, or 8.8 percent, in early 1975. The rate fell to 7.2 percent in May of 1975, rose again to 8.6 percent in June of that year, and remained over 7.5 percent through February of 1976.[3]

Employment patterns in the eight-county Illinois-Missouri St. Louis SMSA have not varied because of any single industrial or occupational mix in the region. The SMSA has more than 3,300 manufacturing plants which employ nearly 260,000 people. Manufacturers in the region produce railroad cars, automobiles, electrical machinery, aircraft, food and beverage products and wood products; no single industry dominates the employment of the region. Wholesale, retail and service industries also provide major sources of employment in the St. Louis SMSA. Approximately 85 percent of the SMSA's employment is in the Missouri counties.

This pattern was reflected in the distribution of layoffs as the recession of 1974 and 1975 reduced employment in the region. Auto manufacturing provided nearly 30,000 jobs in late 1973. The energy crisis led to 7,500 layoffs in early 1974, and by early 1975 employment in St. Louis SMSA auto manufacturing plants had fallen to 16,400. Since then employment has risen gradually to more than 20,000 workers.

Retail and wholesale trade was similarly affected as A & P closed or consolidated a number of its stores and GEM, Arlan's, Atlantic Mills, Spartan, Shoppers Fair, E.J. Korvette and W.T. Grant closed most or all of their stores in the area. Many other small franchises closed in outlying areas of the SMSA, offset by expansion of central shopping areas of St. Louis.[4]

Demography and Economy of the Region

Boundaries of the region included in the Vocational Education Planning Project were not determined by criteria described earlier in this report. The process of negotiating boundaries through social and political compromise described elsewhere in this volume was eliminated through decisions of the Division that the project would focus on the field test area for its Management Information System. The project began, therefore, with a four-county region including the four Illinois counties in the St. Louis SMSA -- Clinton, Madison, Monroe and St. Clair. The MIS field test expanded to include 15 counties in the second year with the addition of Bond, Calhoun, Fayette, Greene, Jersey, Macoupin, Marion, Montgomery, Perry, Randolph and Washington counties. A third view of the region also is reported in this chapter based on the presence of the Southwestern Illinois Metropolitan and Regional Planning Commission, which defines the region as seven counties by adding Bond, Washington and Randolph to the four SMSA counties. Figure V-1 presents the three geographic definitions of the region to be examined in the balance of this chapter.

The 1970 Census reported that the 15 counties had a total population of 837,918. Two-thirds of that number (560,614) lived in the four SMSA counties, and 77 percent (642,459) lived in the seven counties represented by Southwestern Illinois Planning. The rural counties in the area grew very little from 1960 to 1970, while growth in the more urban counties in the St. Louis SMSA increased in population by ten percent during the decade.

This pattern for the larger region, however, may conceal important changes occurring within these 15 counties. Perhaps the most crucial and best known problem is the deterioration of East St. Louis and its industrial base. Older, antiquated industries are leaving; other major employers are choosing to abandon rather than update facilities in the East St. Louis area. Many who elect to remain in the region are moving east and north to escape the decay. Williams (1973: 25) documented the problems of East St. Louis in a National Science Foundation study of the region. She found that "between 1960 and 1970, the city's share of SMSA population shrank from 39 percent to 26 percent. Its share of area jobs declined from 61 percent to 42 percent." The Northwestern University study of vocational education planning in the region did not specifically attempt to document or update changes in this pattern, but we found little evidence that the decline in East St. Louis has been averted. Most of the growth in employment in the region appears to be in Madison and east St. Clair counties, and in the growing shopping and trade centers of Marion and Randolph counties. Complete data for the 15 counties have not been compiled, but Figures V-2 through V-5 present data compiled for the seven counties in the planning region identified by the Southwestern Illinois Planning Commission.

Figure V-2

DISTRIBUTION OF MAJOR MANUFACTURING INDUSTRIES

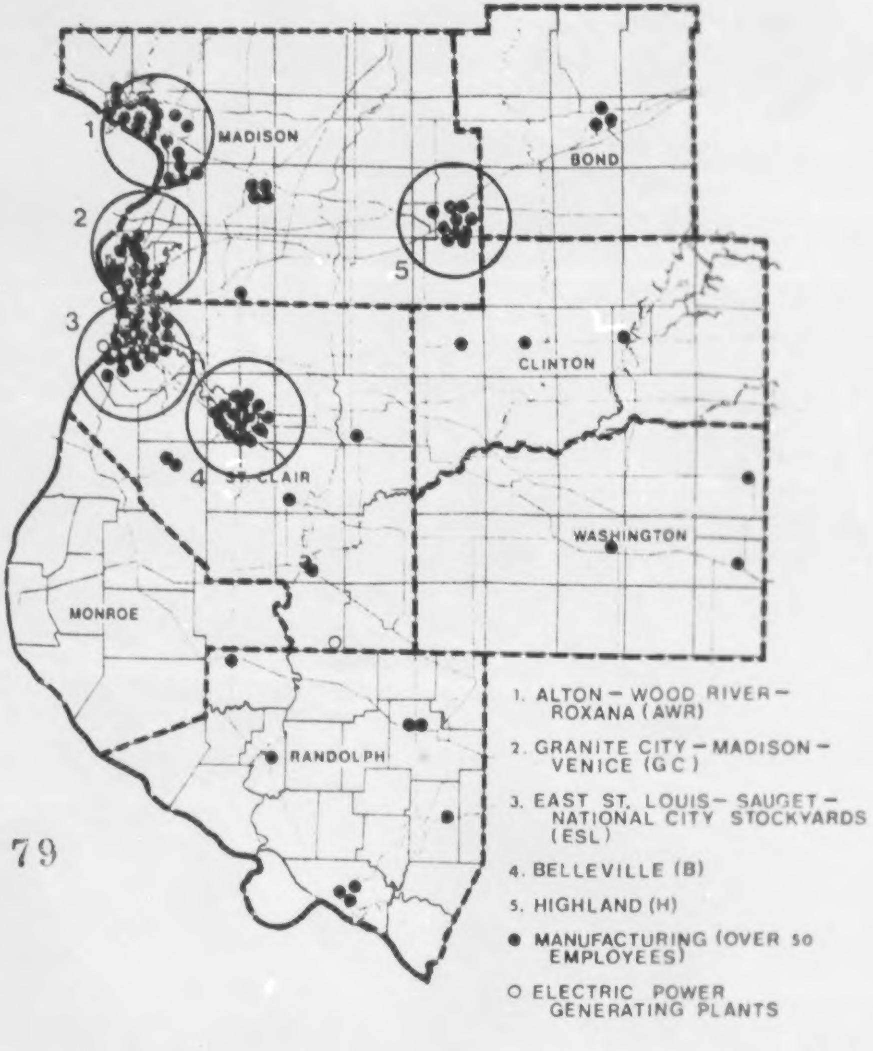

MADISON
BOND
CLINTON
ST. CLAIR
WASHINGTON
MONROE
RANDOLPH
1
2
3
4
5
1. ALTON – WOOD RIVER – ROXANA (AWR)
2. GRANITE CITY – MADISON – VENICE (GC)
3. EAST ST. LOUIS – SAUGET – NATIONAL CITY STOCKYARDS (ESL)
4. BELLEVILLE (B)
5. HIGHLAND (H)
● MANUFACTURING (OVER 50 EMPLOYEES)
○ ELECTRIC POWER GENERATING PLANTS

Figure V-3

MANUFACTURING EMPLOYMENT DISTRIBUTION BY MAJOR INDUSTRIAL GROUP AND AREA

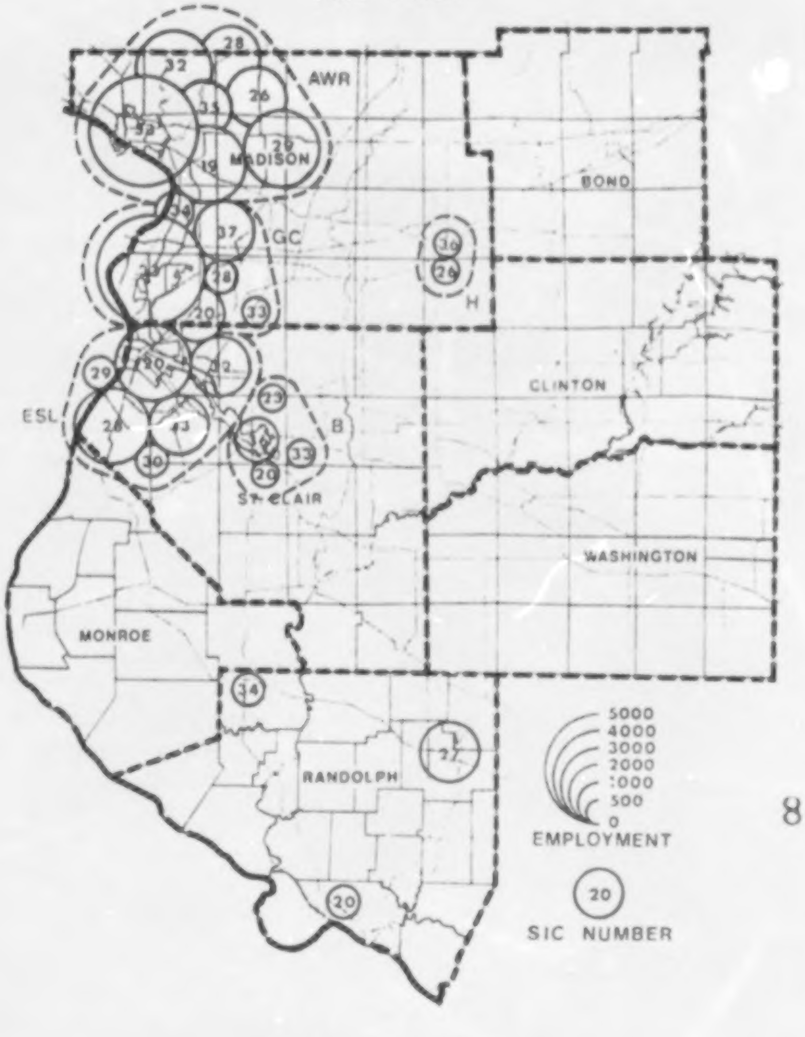
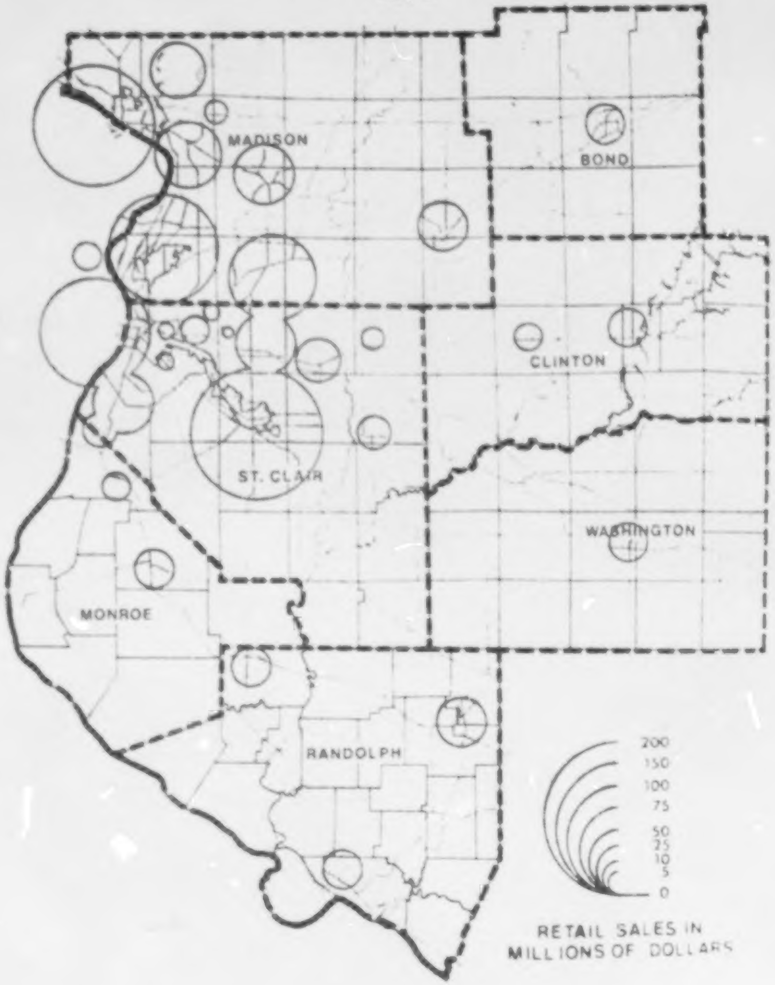

AWR
GC
H
ESL
B
MADISON
BOND
CLINTON
ST. CLAIR
WASHINGTON
MONROE
RANDOLPH
28
32
35
26
29
32
19
34
37
33
28
20
33
36
26
29
20
32
23
28
43
30
33
20
34
27
20
5000
4000
3000
2000
1000
500
0
EMPLOYMENT
20
SIC NUMBER

Figure V-4

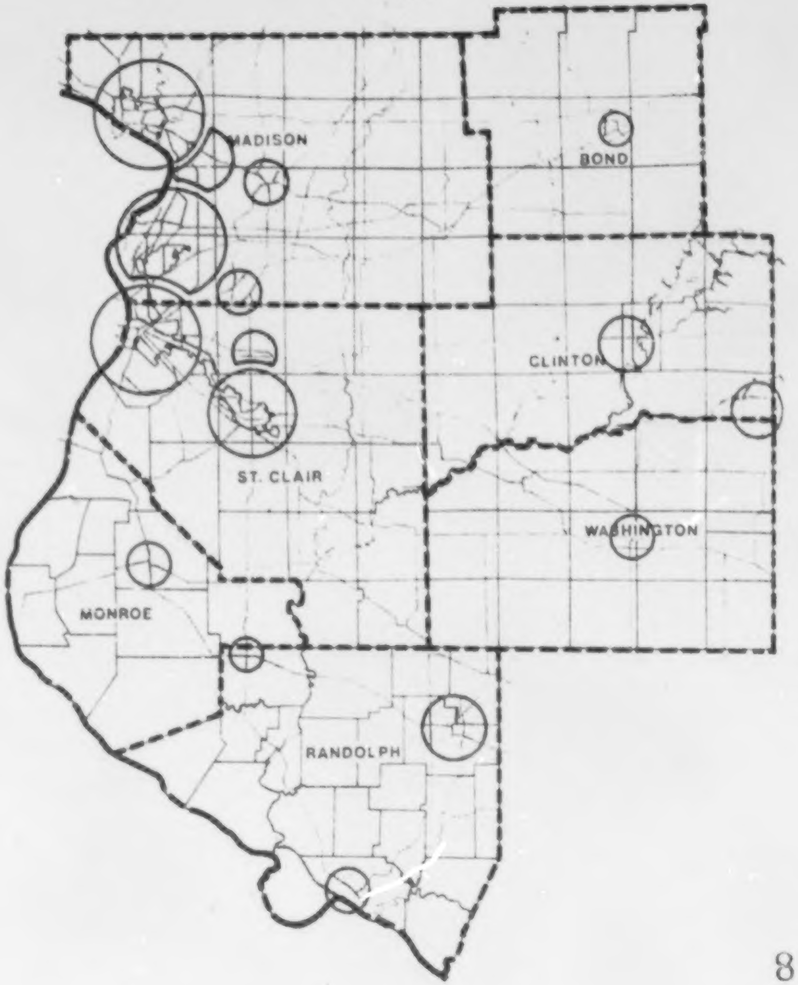
RETAIL TRADE PATTERNS COMMUNITIES OVER 2500 POPULATION 1973


MADISON
BOND
CLINTON
ST. CLAIR
WASHINGTON
MONROE
RANDOLPH
200
150
100
75
50
25
10
5
0
RETAIL SALES IN MILLIONS OF DOLLARS

Source: Illinois Department of Revenue, SIMAPC

Figure V-5

GENERALIZED EMPLOYMENT CENTERS 1970


MADISON
BOND
CLINTON
ST. CLAIR
WASHINGTON
MONROE
RANDOLPH

Source US CENSUS OF POPULATION 1970, ILLINOIS DIRECTORY OF MANUFACTURING, SIMAPC

Median family income in southwestern Illinois counties is generally lower than in the State of Illinois as a whole or in the Missouri portion of the St. Louis SMSA. In 1970 Madison County had the highest median family income at $10,249, while Washington County had the lowest at $7,579. A similar pattern emerges from data describing education in the region. Madison County has the highest median number of years of schooling among adults over age 25 with 11.5. Madison's position in each of these measures may be due at least in part to the presence of Southern Illinois University at Edwardsville, the largest of seven colleges in the region. Washington and Calhoun Counties have the lowest median years of education for adults over age 25 at 8.8 years, with just 31 percent of the civilian adults in those two counties having graduated from high school. Table V-1 reports summary information on education for the four SMSA counties, the seven counties in the Southwestern Illinois Planning Commission area, and the 15 counties involved in the second year of the MIS field test. All three show education highest in the urban counties, with approximately 43 percent of the residents of the 15-county region having completed high school and the median years of schooling slightly below completion of 11th grade.

Among the problems facing East St. Louis and western Madison County is the high concentration of minorities in the 15 counties in the region. More than 80 percent of the black population of the region, reported in 1970 at about 80,000, lived in St. Clair County, with most of the remainder in the Alton-Madison areas of southwestern Madison County. Nearly 7,000 people of Spanish-speaking or Latin American backgrounds also live in the region, with nearly 90 percent of them in Madison and St. Clair Counties.

Table V-1

Demographic and Labor Force Data for Southwestern Illinois

	4 SMSA[1] Counties	7-County[2] Region	15-County[3] Region
Population	560,614	642,459	837,918
Proportion of 15 Counties	67%	77%	--
Educational Characteristics			
Males over Age 25	145,222	162,983	216,672
Median Years	11.1	11.1	10.9
HS Graduates	46%	45%	44%
Females over Age 25	164,703	182,398	243,670
Median Years	11.0	10.9	10.7
HS Graduates	43%	43%	43%
Adults over Age 25	309,925	345,381	460,342
Median Years	11.1	11.0	10.8
HS Graduates	44%	44%	43%
Labor Force Characteristics			
All Workers over Age 16	205,686	226,995	295,397
Work in County of Residence	123,712	138,980	183,482
% of Labor Force	60%	61%	62%
Work outside County of Residence	69,292	72,865	88,255
% of Labor Force	34%	32%	30%
Not Reported	14,506	16,820	24,319

[1] MIS field test area during 1974-75 and first year of planning project.

[2] Southwestern Illinois Metropolitan and Regional Planning Commission area.

[3] MIS field test area during 1975-76 and second year of Northwestern's Vocational Education Planning Project.

The importance of St. Louis and the Missouri portion of the SMSA to the labor force of southwestern Illinois is especially apparent in the final group of data presented in Table V-1. The four SMSA counties include 70 percent of the region's total labor force of 295,397 workers, but only 60 percent of the resident labor force in southwestern Illinois works in the county in which they live. Expansion of the region to seven and 15 counties, respectively, reduces this percentage primarily because residents of the more agricultural counties tend to remain closer to home for work.

Of course, not all of the 30 to 34 percent of southwestern Illinois residents who work outside their own counties commute to Missouri or St. Louis. Many drive from one Illinois county to another. But Table V-2b reflects the fact that more than 50,000 Illinois residents, or nearly one-sixth of the resident labor force, commutes into St. Louis and its neighboring communities for work. Table V-2a, by contrast, shows that only 11,000 Missouri residents commute to jobs in the seven Illinois counties in the Planning Commission region. Figure V-3 locates the major manufacturers most likely to employ individuals commuting from Missouri to jobs in southwestern Illinois; the majority of these jobs are in western Madison and St. Clair County industrial centers along the Mississippi River.

Tabl

SOUTHWESTE
COMMUTING PATTERNS - BY WOR
SOUTHWESTERN ILLIN

COUNTY OF PLA

COUNTY OF PLACE OF WORK	Bond	Clinton	Fayette	Jackson	Jefferson	Jersey	Macoupin	Madison	Marion	Monroe
BOND	93.[illegible] 3,534	2.[illegible] 75	.8 30					1.5 56		
CLINTON	.6 4[illegible]	84.9 5,711			.6 40			.6 40	9.3 626	
MADISON	.7 650	.8 744				2.6 2,417	3.7 3,439	78.2 72,699		.1 91
MONROE										94.[illegible] 2,373
RANDOLPH				2.[illegible] 270						2.5 250
ST. CLAIR	.2 145	1.7 1,230			.1 72		.2 150	7.6 5,497	.1 70	1.3 940
WASHINGTON		2.7 108			2.7 110				5.2 209	

Tab

SOUTHWESTE
COMMUTING PATTERNS - BY WOR
SOUTHWESTERN ILLIN

COUNTY OF PLA

COUNTY OF PLACE OF RESIDENCE	Bond	Clinton	Fayette	Jackson	Jefferson	Jersey	Macoupin	Madison	Marion	Monroe
BOND	[illegible]	[illegible] 60	2.5 [illegible]					10.7 531		
CLINTON	[illegible]	[illegible]			.3 29			5.9 565	9.1 871	
MADISON	[illegible]	[illegible]				.1 120	.3 242	62.2 57,988		
MONROE								1.0 69		47.5 3,263
RANDOLPH				[illegible] 68				1.1 118		2.0 226
ST. CLAIR		[illegible]						5.1 4,897		.2 150
WASHINGTON		[illegible]			1.0 51			1.0 51	7.8 397	

Source: U.S. Census of Population, 1970, 4th Count Summary Tape; Southwestern Illinois Metrop

Table V-2a

SOUTHWESTERN ILLINOIS
ING PATTERNS - BY WORKERS EMPLOYED IN INDIVIDUAL
SOUTHWESTERN ILLINOIS COUNTIES: 1970

COUNTY OF PLACE OF RESIDENCE

Marion	Monroe	Montgomery	Perry	Randolph	Sangamon	Calhoun	St. Clair	Greene	Lafayette Co. (Mo.)	State of Missouri	Washington	Other Locations	Total Living Out of County	Total Workers Employed in County
		1.5 60											6.2 221	100.0 3,768
9.3 626							1.8 121				2.0 135		15.1 1,002	100.0 6,727
	.1 93	.3 279		.1 93		.3 280	7.0 6,508	.5 465		5.7 5,299	.1 95		21.8 20,362	100.0 92,966
	94.3 2,373			2.8 70			4.6 116			1.0 25			8.3 211	100.0 2,517
	2.5 250		7.5 750	81.2 8,131			3.1 310			1.3 130	1.1 110	.6 60	18.8 1,880	100.0 10,013
.1 70	1.3 940	.1 70	.1 70	.6 434	.1 70		79.3 57,353		.1 70	8.2 5,930	.4 300		20.7 14,748	100.0 72,325
5.2 209											89.4 3,518		10.6 427	100.0 3,945

Table V-2b

SOUTHWESTERN ILLINOIS
ING PATTERNS - BY WORKERS RESIDING IN INDIVIDUAL
SOUTHWESTERN ILLINOIS COUNTIES: 1970

COUNTY OF PLACE OF WORK

Marion	Monroe	Montgomery	Perry	Randolph	Sangamon	St. Charles Co. (Mo.)	St. Clair	Ste. Genevieve Co. (Mo.)	St. Louis City (Mo.)	St. Louis Co. (Mo.)	Washington	Other Locations	Total Employed Out of County	Total Workers Residing in County
		2.9 143					3.0 158		2.2 108	1.7 84		5.0 250	29.0 1,443	100.0 4,975
9.1 871							13.1 1,253		4.1 392	1.0 96	.4 39	5.7 545	40.4 3,857	100.0 9,568
		.1 80			.1 76	.1 115	6.2 5,780		12.2 11,373	11.8 11,001		6.7 6,246	37.8 35,241	100.0 93,228
	47.5 3,263			3.9 268			14.3 982		19.9 1,366	6.8 467		6.7 460	52.5 3,606	100.0 6,869
	2.0 226		2.7 303	72.4 8,131			10.1 1,140	1.0 114	4.3 489	2.2 246		3.5 397	27.6 3,101	100.0 11,232
	.2 150			.3 334		.1 113	62.7 60,204		19.2 18,435	7.0 6,721		5.3 5,080	37.3 35,816	100.0 96,020
7.8 397			1.9 97	2.9 147			7.7 392		3.2 162		69.1 3,518	2.2 110	30.9 1,574	100.0 5,092

estern Illinois Metropolitan and Regional Planning Commission.

Employment Patterns in Southwestern Illinois

Residents of southwestern Illinois work in a variety of industries, as reflected in Table V-3 data reporting the distribution of the region's labor force by types of employment. As noted earlier, manufacturing is the largest single source of employment with 27 percent of the labor force of the 15-county region employed there. Wholesale and retail trade is the second largest industry for the region accounting for 19 percent of the labor force. According to the 1970 census, no other industry employs more than 9 percent of the resident labor force.

Employment service data were not compiled for the 15-county region served in the second year of the MIS field test because not every county in the region includes local services. Data from the East St. Louis labor market analysis of the Illinois State Employment Service, however, are available for the four Illinois counties in the Illinois SMSA -- Clinton, Madison, Monroe and St. Clair. The March 1976 Area Manpower Review for the four counties reflects slight improvements in economic and employment activity since the recession of 1974 and 1975. Employment Service data indicate rising wages and total employment, with expectations of continued gradual growth.

This pattern is reflected in the two-year patterns revealed in Employment Service data. Total employment in the four counties fell in the 12-month period prior to February 1975, but rose by 425 jobs, or just under one percent, from then to February 1976. Manufacturing employment increased during the second 12-month period due to higher demand for beverage containers, primary metal products, transportation equipment and food and textile products in the major firms of the region.

Table V-3

Industry of Employed Persons in Southwestern Illinois

	4 SMSA Counties	7-County Region	15-County Region
Agriculture	5,453	8,356	16,243
% of Labor Force	3%	4%	5%
Mining	1,173	1,775	3,713
% of Labor Force	1%	1%	1%
Construction	10,838	12,434	17,109
% of Labor Force	5%	5%	6%
Manufacturing	59,274	64,368	79,677
% of Labor Force	29%	28%	27%
Transportation, Communication & Utilities	19,613	20,986	25,840
% of Labor Force	10%	9%	9%
Wholesale & Retail Trade	38,915	42,338	55,308
% of Labor Force	19%	19%	19%
Banking, Insurance & Real Estate	10,037	10,584	12,741
% of Labor Force	5%	5%	4%
Personal Services	14,262	15,387	19,847
% of Labor Force	7%	7%	7%
Health Services	10,524	11,945	16,148
% of Labor Force	5%	5%	5%
Education	15,827	17,375	22,156
% of Labor Force	8%	8%	8%
Other Services[1]	19,770	21,447	26,887
% of Labor Force	10%	9%	9%
Total	205,686	226,995	295,397

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[1] Includes government workers and professional services such as law, engineering and ministerial workers not included in other industries.

Non-manufacturing employment in the region increased at nearly the same rate as manufacturing jobs through slight increases in the demand for health care and retail workers in the shopping centers. These increases offset declines due to the closing of major food warehouses and several major retailers in East St. Louis, and the bankruptcy of the W.T. Grant stores.

Although unemployment in the four-county area fell from nearly 10 percent in early 1975 to 8.8 percent in February, 1976, nearly 22,000 people remained unemployed in the spring of this year. Further growth is not expected to reduce the unemployment rate of the region dramatically during the coming months.[5]

Notes

1. The historical information about the southwestern Illinois region in this study is based on the volume Population and Economy of the Southwestern Illinois Region, Collinsville, Ill.: Southwestern Illinois Metropolitan and Regional Planning Commission, 1974.

2. Missouri Department of Labor and Industrial Relations, Division of Employment Security. Area Manpower Review, St. Louis, Mo. - Ill. Standard Metropolitan Statistical Area. No. 7040. St. Louis, Mo.: Missouri Department of Labor and Industrial Relations, March 1976.

3. Current Population Survey data provided through the Missouri Department of Labor and Industrial Relations, Division of Employment Security, Jefferson City, Missouri. The data reported were produced from CPS information available on March 18, 1976.

4. Missouri Department of Labor and Industrial Relations, Division of Employment Security. St. Louis SMSA Employment Outlook. St. Louis, Mo.: Missouri Department of Labor and Industrial Relations, January 1975.

5. Illinois State Employment Service. Area Manpower Review. Illinois Section of St. Louis Standard Metropolitan Statistical Area. East St. Louis, Ill.: Illinois State Employment Service, September 1975 and March 1976.

CHAPTER SIX[*]

COMMUNICATION CHANNELS IN VOCATIONAL EDUCATION PLANNING: CREATING THE CLIMATE FOR LOCAL VOCATIONAL EDUCATION CONSORTIA

There were two primary objectives for the first year of this project. The first was to provide technical support in uses of data for planning vocational programs in secondary schools and community colleges in the study area. The data included MIS information as it was made available and BLS data which is relevant to the East St. Louis/Metro East labor market. The second objective of the overall project was to bring educators, business people and government representatives together to discuss the potential for regional vocational planning, common problems such planning might solve, and possible benefits of such planning for the economic and social growth of southwestern Illinois. The overriding goal was to promote regional cooperation, information sharing and planning.

There were several activities employed by the project staff to determine the type of vocational education planning which presently existed and to assess attitudes toward regional or cooperative planning in the area.

The process of attempting to determine attitudes toward and goals for vocational planning proceeded with three techniques. Extended personal interviews with a selected sample of school officials and business representatives provided an introduction to people and institutions in the Metro East area. Second, an open-ended survey of the institutions helped determine attitudes toward vocational planning. Third, meetings and site visits helped build consensus among vocational and other educators in an attempt to reach a planning model that would be conceptually strong and acceptable to its users.

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[*] The conceptual framework and draft of this chapter were provided by Leslie Nathanson, Northwestern University Graduate School of Management and School of Education. Any additions, errors or omissions are the responsibility of the project director.

Two structured workshops were designed to involve representatives of schools and institutions in the Metro East area in this preliminary planning process. The first session focused on local perspectives through identification of problems in vocational education planning. The second meeting involved representatives from the same schools in a search for solutions to the most serious problems identified in the first meeting. The purpose of these workshop meetings was to create incentives for a regional vocational education consortium which would share information and contribute to a climate facilitating regional planning.

The project coordinator initiated the first workshop with an invitational letter to each secondary school superintendent and community college president in the four counties (Madison, St. Clair, Clinton and Monroe) then participating in the Division's MIS. Twenty-three superintendents, junior college presidents, principals and vocational education directors[1] attended the problem identification workshop. The workshop used a nominal group technique styled after that developed by Andre Delbecq at the University of Wisconsin for use with community action programs and similar development groups.[2]

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[1] Only educators were invited. In subsequent uses of the technique, employers and government agency representatives (e.g., CETA, Employment Security, social service agencies) have added much to the insight and priorities of participants in the process.

There are two essential differences between nominal group techniques and conventional discussion group brainstorming strategies. First, the participants work silently during the initial parts of the process, writing their ideas on paper as they occur. This provision assures that all participants have equal opportunity to contribute ideas in the initial round of discussion. This safeguard is important for groups in which participants are from different organizations and levels of authority.

The second major distinction of a nominal group technique is that it moves inexorably toward a conclusion. The program is sufficiently structured so that conclusions are difficult to avoid. Choices are made which help establish group consensus regarding the order in which problems should be addressed.

Participants in the initial problem identification session were asked to respond to the problem statement: "What problems do you face in planning vocational education programs that are responsive to the needs of individuals, governments, and industry in this area?" Each person was asked to record problems faced in the course of his or her job. They were asked to organize problems into those "which affect me personally" and those "which affect my institution."

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[2] The process used in the Metro East area is explained in further detail later in this chapter. A detailed explanation of the basic model is available in Delbecq and Van der Ven (1971).

After about 15 minutes of "silent idea generation," leaders in each small discussion group ask participants to report their problem statements. All problem statements from each participant are written on large sheets of newsprint so that discussion begins with each idea from every participant in view for the entire group. After all the problems and ideas of the participants have been listed and discussed, each participant ranks the five problems which, in his or judgment, are the most serious. Each individual's rankings are reported and scored to arrive at a group consensus regarding the problems most in need of solution. The results of each group are then shared with all participants from the other groups. This nominal group technique often enables participants to discover the similarity of each group's judgments regarding the most serious problems in their work.

The fall problem identification workshop in the Metro East area led to consensus that four major issues present the greatest challenge in planning vocational education programs responsive to local individuals, industry and jobs: information, resources, coordination and organizational structure.

Information was cited as a prime need, indicating a potential responsiveness to the kinds of supply and demand data designed to be gathered in the Division's MIS. However, participants cited a lack of awareness of the system and appreciation of its potential benefits. Specific information needs discussed involved:

1. Good data on current and projected job demand.
2. Follow-up information on students.

3. A summary of how and where to find occupational information.

The second major classification was the lack of resources for vocational education and planning. Participants discussed more than the obvious constraints of limited finances and equipment; their concerns also involved constraints about staffing resources:

1. Lack of vocational guidance for students.
2. Lack of trained vocational counselors.
3. Need for teachers with more specialized skills.

Third, there was a lack of coordination perceived among schools, local and state agencies. Among the specific problems cited as most important were:

1. Too many duplicated forms and procedures in reporting to different agencies. For example, the Division's process of one- and five-year plans was not always viewed as beneficial to local schools.
2. Duplication of high school and community college programs and communication problems between them.
3. Lack of regional or state planning, which contributes to a lack of coordination among high schools, area vocational centers and community colleges.[3]
4. Lack of time to engage in effective planning.

A complete listing of the problem statements is in Appendix A.

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[3] Illinois secondary schools operated under two separate state boards until July, 1975, when the Division of Vocational and Technical Education was merged with the Illinois Office of Education. Community colleges still operate independently of secondary school vocational education, with funding and program approval determined by the Illinois Community College Board and the Illinois Board of Higher Education. Coordination at the local level is thus constrained by several independent sets of administrative rules governing funding, planning and program approval.

In addition to these problems, there was a commonly expressed concern with curriculum development. Special interest was expressed in the development of a core of vocational and general high school courses that might facilitate success for high school students and graduates in a constantly changing labor market.

The second of these initial workshops in the Metro East area was held with representatives from the same educational institutions in December of 1974. Representatives of the Southwestern Illinois Metropolitan and Regional Planning Commission and the Illinois Department of Business and Economic Development also attended. The same information-gathering technique was adopted from the first workshop to focus participants' attention on solutions to the problems that had been posed during the previous session.

Many of the suggested solutions supported the development of a regional organization:

1. County or regional curriculum development organizations are needed, particularly to help the smaller schools which do not have resources for investigating and piloting changes in their own programs.

2. Sources of manpower information should be gathered once for the benefit of all schools in the region.

3. A public image and advocacy program would raise the visibility of vocational education in the region and with potential funding sources in state and federal government.

4. A regional voice in state policy decisions is needed. The rationale of the present approval mechanism was questioned by several participants; many were particularly critical of the requirement that schools have programs in each of the five established vocational clusters.

At that meeting, there was a decided lack of enthusiasm about the assumption of leadership roles in starting a regional organization to deal with some of the problems raised. It appeared that Gresham's Law of Planning might apply, namely that the press of daily routine would drive out enterprise for planning (March and Simon, 1958:185). However, that judgment was premature. During the spring of 1975, a Vocational Education Consortium was voluntarily developed by schools and colleges in the region.[4] The Consortium planned and conducted its first meetings in the spring and summer of 1975, and is now planning for its second full year of operation in 1976-77 with active support from many of the representatives of Region Five schools involved in the MIS. By-laws and the constitution focus directly on many of the problems and solutions suggested in the initial Metro East workshops.

The birth of the Southwestern Illinois Vocational Education Consortium and the Northwestern University grant from the Division appear to have been mutually supportive events. The initial workshops helped establish consensus regarding the importance of communication and information sharing for regional planning. The Division's interest in vocational education planning may have served as a catalyst by creating a climate encouraging local educational leaders to develop the Consortium. The Division's MIS pilot study also contributed to interest in the Consortium by providing the financial resources to encourage participation (mileage and substitute teacher costs were paid to members attending each meeting). Information and materials for the MIS field test also provided incentives for people to attend Consortium meetings, especially representatives from some of the school districts in the counties most distant from the Belleville-East St. Louis core of the region's labor market.

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[4] Alfred Redding of Beck Area Vocational Center is chairman; Clyde Washburn of Belleville Area College is vice-chairman. Both are serving two-year terms.

A stricter test of the local commitment to the Consortium is evolving for 1976-77 as members of the group's executive board plan future meetings. Planning sessions in June and July, while this report was in preparation, focused on efforts to make the Consortium completely self-sustaining while attempting to expand its membership to include employers, regional planners and others concerned with employment and training in the region's labor market. A further revision under consideration by the Consortium's board was reduction of its geographic area from the 15 counties included in the Division's MIS field test area to eight counties more directly involved in the Metro East labor market.

Finally, mention should be made of the Consortium's important role in the planning and conduct of the Southwestern Illinois Employer Survey described in greater detail in Part III of this report. The Consortium's interest in improved regional labor market information describing current and projected occupational demand patterns for the 15 counties was prerequisite to the success of the survey. The importance of local sponsorship and interest in such a survey cannot be understated; there is little doubt that the rich resource resulting from the Employer Survey would not exist today without the effort and interest of the Consortium in gathering and using such information. Now the Consortium is looking further, anticipating future programs to help administrators, planners, teachers and counselors learn to use the local labor market information about the region. This step will depend on establishing formal communication and participation with employers as members of the Consortium. Both the methodology for gathering local labor market information and the usefulness of such information for each of the elements of the labor market model--(supply (schools), intermediaries (teachers, counselors, students and parents) and demand (employers))--have been advanced significantly through the creation of the Consortium.

The State Role in Creating Regional Planning Groups

Most states, including Illinois, have long mandated advisory councils for vocational education. Unfortunately, the problems cited and solutions proposed by the Southwestern Illinois Vocational Education Consortium reflect the fact that mandated councils do not always achieve their desired objectives. The success of the Consortium, and of regional labor market planning in vocational education, may well rest on how the state agencies involved in education, employment and training react to the recommendations in this report.

The first and most essential characteristic of the Consortium is that it requires local leadership. No state agency can mandate good leadership. Therefore, we recommend that the state role should be to create the incentives and conditions which facilitate development of local vocational education consortia within each region of Illinois.

Many incentives can be created by the Division to facilitate the development of regional labor market and vocational education planning in Illinois. The first is recognition of the need for such planning through the Division's response to the recommendations in this report. Among the problems of the initial year of this project was the Division's reluctance to take formal steps to discuss implications of the regional labor market planning model for vocational education policy. While Division staff in Research and Development responded to the initial report's recommendations, no official action was taken outside that unit. Such consideration might lead to a second important incentive the Division might create for local educational agencies: policy and program approval practices. A third level of response involves Division funding of research and demonstration projects. The investment of Division funds in the Northwestern project appears to reflect initial interest in the concept of regional labor market and vocational education planning, but much remains to be done before the findings of this two-year study will begin to impact on planning across the state. Each of these incentives might provide additional recognition, program approval or funding for programs which have been well thought out through the planning strategies recommended in this report. These planning strategies all depend on the use of local labor market information. Each also depends on the Division's support for development of a network of regional consortia or communication channels necessary for appropriate regional cooperation and planning.

The state's role, therefore, need not involve the diversion of major resources. However, the state must create incentives to nurture this innovative organizational activity in all regional labor markets and vocational education planning areas of Illinois before local agencies can or will respond. The press of daily routine need not be a barrier to the creation of new communication channels to facilitate regional planning. The work of the Northwestern project in vocational education planning has demonstrated three key roles for the state:

1. The state should show interest in and support the Consortium effort.
2. The state should provide information which will facilitate regional planning toward future labor market demand and labor supply by occupational and industrial classification.
3. The state should recognize local leaders and provide them with tools (information and group techniques) which will help facilitate a regional consortium effort.

Activities and Tools to Encourage Local Leadership

The state should make an effort to identify potential leaders from employer, governmental or educational segments of society. These leaders could then be supported and trained to initiate consortium groups in their home regions.

It is not essential that the leadership for regional consortia come from a single group across the state. Representatives from area vocational centers, community colleges, secondary schools, employers and regional planning organizations each might emerge in one area or another as the catalyst for leadership in a region or the consortium. Potential leaders cannot be restricted to secondary school staff. Their primary qualification must be a commitment to the concept of regional planning. They also should be well respected in their communities, and recognize the importance of a diverse communications resource for addressing and solving the vocational education needs of their regions with labor market information to facilitate improved planning.

A further state role as potential consortia leaders are identified evolves from step three above: providing them with information and group techniques to facilitate the formation of effective regional consortia. The Division should consider sponsoring seminars for potential leaders to teach: (1) use of the MIS and labor market information which is relevant to vocational planning regions of the state; and (2) nominal group technique as an example of a process which facilitates early involvement and commitment from varying groups who share common goals or problems. Recommendations on the use of such training by the Division appear in the next section of this report. The potential leaders would then be able to return to their regions equipped with information, group techniques and state support to encourage the creation of regional consortia for vocational education planning, labor market information and shared program information.

Nominal Group Technique

Nominal Group Technique (NGT) is a structured problem-solving process specifically designed to generate ideas and reach group consensus. The goals of the technique are:

1. To increase creativity and participation in group meetings involving problem-solving and/or fact-finding tasks.
2. To develop or expand perception of critical issues within problem areas.
3. To facilitate ranking of priorities among the issues selected, considering the viewpoints of differently oriented groups.
4. To obtain the input of many individuals without the dysfunction of unbalanced participation, which often occurs in large groups.

Two uses of this technique are recommended to the Division. In the initial stage, NGT can be used to bring potential leaders from around the state together to share mutual problems. The second stage would be used when the consortia leaders return to their home regions and bring educators, employers and local government people together to discuss the problems and solutions in their own regional vocational educational meetings.

Each of the stages would benefit from the model established in the southern Illinois area. The first meeting in each case should be a problem identification workshop. The second session in each case should deal with possible solutions directed at specific problem areas previously identified. Closure of the second session should include participant-generated plans for further action.

NGT is effective in goal, value, problem or solution clarification meetings because it promotes:

1. creativity;
2. full and balanced participation of group members;
3. abundant idea generation, and;
4. closure to meetings via voting techniques.

NGT achieves these qualities through four steps, each utilizing a different process to nurture each stage of creativity. The steps are: (1) silent idea generation; (2) reporting of ideas; (3) discussion of ideas; and (4) ranking of ideas. The first step promotes divergent thinking by group members who are asked to think about a specific issue and make private notes about their ideas concerning that issue. The second stage gives each member time to relate ideas to the group while the leader records them before the group. This step encourages full group participation even by members who are usually quiet or shy. The third step involves discussion of each idea for clarification, allowing expanded group perception of critical issues through defining individual points of view. The fourth stage calls for the establishment of priorities of selected ideas or issues through the aggregate ranking of all the ideas by individual group members.

Nominal Group Technique is most useful with groups of six to ten participants with a trained leader assigned to each group. Typically, several small groups are run simultaneously by from three to six leaders. It has been used with people from many socio-economic levels and cultures, and has been employed in human service organizations in education, health and the social services. About two hours is required to run an issue identification session.

The four steps of the NGT process are depicted in detail in Figure VI-1. The Action and Guidelines Sections show in detail the specific procedures to be taken by the leader in each step. An example of a session using the process is in Appendix A.

FIGURE VI-1

Process Steps

Step 1:
Silent Idea Generation

Action and Guidelines

1. Clarify problem statement
   - pass out worksheets and pencils
   - read problem statement
   - explain kind of response desired (open ended or what comes to mind)
   - resist further process clarification (no examples)
2. Guidelines
   - request that ideas in response to question be written in short phrases on worksheet
   - request members work individually and silently
   - stress identification of problems, not solutions
   - Again, ask for cooperation and commitment to task at hand.
   - Discourage disruption of silent, independent activity. (Please stay with your group.)

Rationale

1. Provides adequate time for thinking.
2. Encourages people to work, as they see others working.
3. Promotes divergent thinking.
4. Eliminates dominance by high-status or aggressive participants.
5. Keeps group problem-centered.

Step 2:
Round Robin Reporting of Ideas

1. Clarify goal and process of this step
   - An accurate list of the ideas generated in this group
   - Ideas will be taken serially
     - Ask the first person for one of his ideas
     - Write down the phrase as it is stated
     - Ask if anyone else has a similar idea: write down variations of the ideas as they are stated
     - Return to next person for new idea
     - Continue until all are recorded on flipchart
2. Guidelines
   - Record ideas as quickly as possible (attention if short here)
   - Record ideas in words by the individuals
   - Keep entire list visible by tearing off completed sheets and hanging on wall.

Note: "Hitchhiking" is invited. If ideas written on the chart stimulate another idea for a participant, participant is encouraged to add to worksheet and report to group.

1. Equalizes opportunity to present ideas.
2. Provides a written record and guide.
   - Increases ability to deal with large number of ideas
   - Avoids loss of ideas
   - Presents group with an array of clues
   - Encourages hitchhiking
3. Places conflicting ideas comfortably in front of group
4. Round Robin approach establishes a behavior pattern. By the second or third time around each member is an achieving participant. A precedent for further participation is set without competition with high-status, aggressive or emotional personalities.
5. Allows ownership of concept by using participant's own words.
6. Facilitates group participation on an equal footing.

Step 3:
Discussion for Clarification

1. Clarify the role and process of this step
   - Purpose is to clarify.
   - Members should ask each other the meaning of works and phrases
   - The discussion can and should convey the meaning, logic, or thought behind an item.
2. Guidelines
   - Take each idea listed on the flipchart in order.
   - Place the discussion to avoid undue argumentation about some items to the neglect of others. (You want to enhance understanding but minimize influence based on verbal prominence or status)
   - Encourage participants to ask clarifying questions.
   - Ask for specific examples when possible.

1. Avoids having discussion focus unduly on a particular idea.
2. Helps eliminate misunderstanding.
3. Provides opportunity to express logic behind terms.

Step 4:
Ranking of Problem Importance

1. Purpose of ranking is to aggregate the judgments of individual members in order to determine the relative importance of problems identified.
2. Guidelines
   - Give each idea a letter identity (if you run out of the alphabet, use double letters)
   - Give each member 3 X 5 cards
   - Ask the group members to select 5 items with highest priority (This will take careful thought and effort, so encourage participants to take needed time)
   - Ask each to record each of his selected items on a card, placing the letter in the upper left corner and the short identifying phrase in the center (show example)
   - Rank order cards at the same time after each member has selected his 5 items. Say "Look at your five cards. Decide which problem has top priority. Please put a 5 in the lower right corner"
   - Proceed through the rank order
   - Collect Cards
   - Record and tally ranks on master chart

1. Obtaining independent judgments in writing helps eliminate social pressures.

Operating Hints
1) Use name tags without titles
2) Use desk name cards
3) Set ground rules - i.e. - kindly do not interrupt when someone is talking

L. Nathanson
November 1975

References

1. The 1975 Annual Handbook for Group Facilitators, John E. Jones and J. William Pfeiffer (eds.), La Jolla, California: University Associates Publishers, Inc., 1975.

2. Group Techniques for Program Planning, by Andre L. Delbecq, Andrew H. Van de Ven and David H. Gustafson, Glenview, Illinois: Scott, Foresman and Company, 1975 (for more detail see references at the end of each chapter).

3. "A Group Process Model For Problem Identification and Program Planning," by Andre L. Delbecq and Andrew H. Van de Ven, Journal of Applied Behavioral Science, 7, 1971, 466-492.

4. "Nominal Versus Interacting Group Processes For Committee Decision-Making Effectiveness," Andrew H. Van de Ven and Andre L. Delbecq, Academy of Management Journal, 14, 1971.

5. Planning for Vocational and Regional Development, Frank H. Cassell et al., Project for Vocational Education Planning, Graduate School of Management, Northwestern University, Evanston, Ill., 1975.

CHAPTER SEVEN[*]

VOCATIONAL PLANNING IN THE PRESENT TENSE

This chapter examines the state of vocational education planning in Illinois. The formal planning system is described and evaluated, as are its underlying assumptions and the planning practices of Illinois high schools in the Southwestern Illinois Vocational Education Consortium area.

Underlying the present planning system are a number of assumptions about the nature of students and the job markets they may enter. The most commanding of these assumptions is a belief that vocational education is an efficient gatekeeper or screen through which students are sorted into occupational groups. Vocational education training slots are created by programs which must be filled to keep teachers employed and equipment in use. Local labor market information needed to assess the appropriateness of program mix and size in local school districts is seldom available. Lecht (1974: 43-4) identifies a still greater problem in vocational education planning. He found that vocational education programs are seldom terminated; program additions and major expansions outnumbered program terminations 12 to 1.

A second assumption built into the present system, and a particular risk of the Division's MIS in its present form, is implicit in potential interest in basing future funding on student followup information assessing where vocational education graduates work. Student career choices appear substantially less definite -- particularly in high school -- than they are assumed to be in much present vocational education planning.[1]

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[*] The conceptual framework and draft of this chapter were provided by Professor Charles Kerchner, Claremont Colleges, Claremont, California. Any additions, errors or omissions are the responsibility of the project director.

Finally, the present system makes the tacit assumption that vocational education proceeds from a unitary set of goals -- that which is good for schools is also good for industry, citizen's groups, taxpayers and also for students. This assumption, we suggest, deserves careful examination.

The Existing Planning System

The planning system of the Illinois Division of Vocational and Technical Education is described as a three phase system for statewide evaluation.[2] It operates on annual cycles in which local schools submit one- and five-year plans for vocational education in their districts. These include a narrative description of the school goals, a description of the administrative structure and credentials of the personnel involved, financial and demographic data and a listing of courses, programs and expected enrollments in each of five standardized program areas (Applied Biological and Agricultural Occupations, Health Occupations, Industrial Oriented Occupation, Business Marketing, and Management Occupations, and Personal and Public Service Occupations) The standardization of course and program titles has been a major goal of the Division in recent years.

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[1] This is particularly so in a system, such as that contemplated in the DVTE/MIS proposal, which bases its projections on the validity of student declarations of occupational choice in freshman and sophomore years. Early returns from that system indicate that upwards of 60% of the students do not even make a declaration of interest much less a commitment to seek employment in a particular occupation.

[2] Three Phase System For Statewide Evaluation of Occupational Programs, Bulletin 35-971, Springfield; Division of Vocational and Technical Education (1974).

The annual cycle, which has been approximately the same for each of the five past years, begins in December with a series of meetings throughout Illinois in which the procedures and guidelines for executing the upcoming plan are explained. Modifications have been made from year to year; however, the general pattern has remained stable. Plans are submitted to the State Division by March 1. These are reviewed and approved, first by the staff and then by the Division director.[3] Approximately 80% of the plans are approved by May 1, with the remainder usually approved by the first of July.

Submission of a plan and its approval is a prerequisite for state vocational education reimbursement to local school districts. Funding levels are determined by priorities set within the Division in accordance with manpower needs as represented to the Division by the Illinois State Employment Service and Manpower Planning Regions, with exceptions for special skill shortages by occupation within individual school districts. Four funding levels exist, each related to projected demand for various occupations. The highest (A-level) includes occupations such as Dental Laboratory Technology, Inhalation Therapy, Business Data Processing Systems, Police Science Technology and a number of cooperative education programs. Examples of B-level programs include Ornamental Horticulture, Histology, Food Management Production and Services, Secretarial, Water and Waste Water Technology and Photoengraving. C-level funding is applied to areas of low demand and currently include Agricultural Production, Retail Trade, Medical Assisting, General Office Clerking, Scientific Data

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[3] Plans from school districts are submitted through the Educational Service Region; those from community colleges are submitted through the Illinois Community College Board. Review by these institutions is commonly cursory and without reference to the potential impact of secondary school and community college vocational-technical programs on each other in the same region.

Processing, Communications, Electronics and Dry Cleaning. D-level classification offers schools no reimbursement at all; current examples: Logging, Home Furnishing, Messenger and Office Services, Seamanship and Maritime Maintenance.

While the dollar amount of state support for vocational education has increased in recent years (from $16.1 million in 1969 to $30.6 million in 1973), the support on a per capita basis has declined. Secondary school programs, for instance, received $58.00 per student in 1969, but only $35.00 in 1974.[4]

The annual review cycle is one of the three phases of the planning and evaluation system. As depicted by the Division, the plan begins with a self-evaluation by the school district, followed by the program submission and review. Phase three involves external evaluation by a visiting team, which makes recommendations to the local school district. This review, held in approximately 15 percent of the state's schools each year, is similar in nature to the reviews carried out by regional accrediting agencies. The Division's program planning and evaluation unit has arranged combined visits between Division and North Central Association accreditation teams when both were scheduled in the same school year. The three phases are intended to link as shown in Figure VII-1, which is modeled after the Division's description of its own program.

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[4] Review of Funding of Regular Program Operations FY1969-1972, Springfield: Division of Vocational and Technical Education (1972).

FIGURE VII-1

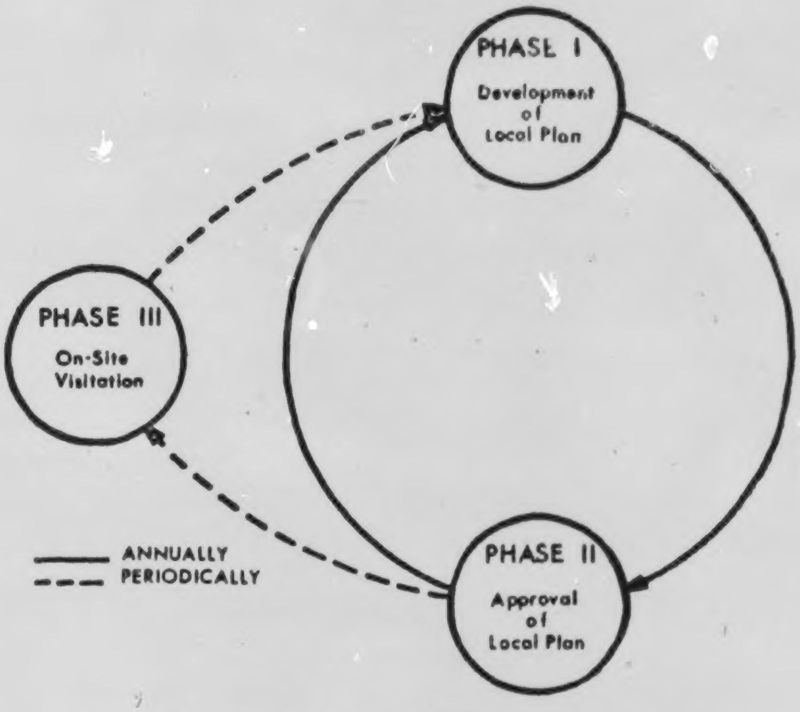
The Three Phase System of Evaluation has been designed to assess the extent to which objectives are being met. Each phase has a specific function:

Phase 1. Utilization of self-evaluation data in program planning.

Phase 2. Program approval by DAVTE staff.

Phase 3. External evaluation by a visiting team to develop a profile of the local program with conclusions and recommendations to the local district.

This cycle is illustrated in schematic form with a feedback loop which allows for a built-in followup of changes recommended in Phase Three. Phases One and Two are annual processes while Phase Three occurs every two to five years or as warranted.


PHASE I
Development of Local Plan
PHASE III
On-Site Visitation
PHASE II
Approval of Local Plan
ANNUALLY
PERIODICALLY

Schematic of Three Phase System for Statewide Evaluation of Occupational Education Programs

Source: Three Phase System for Statewide Evaluation of Occupational Programs, Bulletin 35-971, Springfield, Ill.: Division of Vocational and Technical Education, 1974: 3.

As the planning system has developed over the last five or six years, there has been a tendency for structure to precede substance. The annual review system was the first conceptualized and, because of its attachment to state funding, the first widely used. There are obviously elements of a compliance system in the annual reviews. Those schools which do not present their programs in an approvable manner officially risk conditional approval, which allows state funds to be spent in support of the local district's programs while improvements are made. Although such probationary approval is seldom used and the ultimate threat of total nonapproval is even less frequent, the compliance aspects of the annual review do not preclude serious planning. Data from the schools in the Southwestern Illinois Vocational Education Consortium show that substantive efforts toward locally derived planning are underway.

The internal and external evaluation aspects of the Three Phase Planning and Evaluation System have been slower to develop. The external evaluations have nearly reached the designed coverage of 20 percent of the state's schools a year, and the Division has financed a number of projects to develop materials for use in local district self-evaluations. As this report is being written, a comprehensive set of materials is being developed at the University of Illinois for this purpose.

Planning in the School Setting

Surveys, interviews and observations in Consortium-area schools strongly suggest that program goals are unclear and thus often subservient to the maintenance goals of the school system.[5] Schools know what the enrollment requirements are for retaining tenured teachers. These maintenance requirements of the system dominate when placed alongside the less certain goals of vocational education.

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[5] Observation and informal interviews took place throughout the 2-year life of the project. The majority of the survey work occurred during workshop sessions in July and August 1975 when lengthy questionnaires (Appendix B-2) were administered to school district representatives from all attending districts. Surveys from 56 districts were coded and form the basis for statistical analysis presented here.

Information is likewise limited. Schools maintain highly informal networks of information that allow vocational directors and others to stay abreast of former students and to know about specific jobs as they come available. These communication channels should not be underestimated, for in many cases they may be more effective at the local level for smaller districts than more sophisticated, computer-based systems. However, they are limited both by geography and by the limited amount of information individuals can share. The informal information network is essentially local, and because it is informal and nonstandardized, the information is difficult to share with others outside the district. Finally, even when information about the future is available, the resources for change are not always present.

Within the school districts, planning occurs on an annual cycle that tends not to coincide with requirements of the Division's planning and approval process.[6] This annual cycle is the basic element in the planning process. While some schools reported visits by the Division or the North Central Association, indications are that these visits were perceived largely as evaluation and status confirmation activities which had little to do with searching for alternative paths in the future. Likewise, internal self-evaluation was not the norm, although it was not totally absent from the schools being studied.

The 55 districts surveyed reported making significant commitments to change during their annual planning cycle. More than 71 percent of respondents reported that they had added a new vocational program within the past year, or made a commitment to do so in the future. Decisions to close programs were more rare. Only 22 percent of the respondents indicated that they had decided to close one of their programs during the past year. An additional 2 percent had decided to close more than one program.[7]

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[6] The correspondence between the timing of the annual plan mandated by the Division and the planning activities undertaken by school districts is apparently quite high. The exhibit in Appendix B-1 shows that major program decisions are made largely in the January-May period -- roughly the same as that covered by the Division's planning cycle. Other activities are coincident making planning largely a spring semester activity.

Other program decisions cited in the survey included:

1. Decision to obtain minor equipment items (94 percent).
2. Introduction of new texts and related material (65 percent).
3. Decision to obtain major new equipment (55 percent).
4. The introduction of new skill requirements in existing programs (53 percent).
5. Changes in requirements other than vocational skills (45 percent).
6. Adding faculty (or increasing amount of faculty time devoted to vocational education) (43 percent).
7. Initiate cooperative programs with Area Vocational Centers (42 percent).
8. Changes made in counseling services (38 percent).
9. Changes made in placement services (37 percent).
10. Articulation with post-secondary programs, notably community colleges (33 percent).
11. Program(s) moved to new physical facilities (31 percent).
12. Decreasing number of faculty or faculty time devoted to vocational education (19.3 percent).
13. Initiate cooperative programs with other high schools (18 percent).

The types of changes noted in the paragraph above occurred largely without regard to the size or wealth of the schools involved. A composite index of planned change was created by adding responses to survey questions (with heavier weights given to major changes such as beginning a new program or hiring faculty). These composite indexes were correlated with school enrollment, vocational enrollment, tax base and expenditure per student. In all cases the correlations were positive, but they were universally weak. The strongest correlation was .29 between the change index and total enrollment.

This finding suggests that the ability to undertake change is not closely correlated to the environmental characteristics that surround the schools in this sample, in which enrollment ranges from just over 100 to more than 5,000. Yet, it would be inaccurate to suggest that there are not internal or environmental constraints to change.

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[7] Frequency tables for these planning questions are included in Appendix B-3.

The Importance of Enrollment Changes in Context

Survey respondents were also asked to provide an estimate of the importance of certain contextual variables on the choice of whether to change a vocational program. Enrollment factors were clearly perceived as the most potent contextual variables likely to cause a change in vocational education programs. As Table VII-1 shows, these factors were followed in importance with changes in accrediting standards. Financial factors, including a change in support levels by state educational agencies, clustered about the midpoint of the answer range. The exception was a change in federal grant levels; such grants are uncommon in most of the schools under study, and were not viewed as being important forces for change.

Interestingly, from the public policy standpoint, program approval was viewed as more important than financing. That is, a change in program approval standards would more likely produce a change in the level of state support for vocational programs. From a dollars and cents standpoint, regulations are more potent. They control access to all vocational education monies from the state, that is, failure to have an approved vocational program disqualifies one from receipt of funds. Thus, regulations can have significant leverage on local school performance even in a time of declining or stable financial incentives.[8]

Labor market information and conditions tend to fall in the lower half of the contextual influence scale. Information about job availability and about jobs in specific occupations fell close to the midpoint, just below changes in level of state aid, but considerations

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[8] A similar argument has been made by Illinois State Superintendent of Education Joseph M. Cronin in relationship to federal influence on local school districts. See "The Federal Takeover: Should the Junior Partner Run the Firm?", Phi Delta Kappan, 57:499-501 (April 1976).

TABLE VII-1

IMPORTANCE OF CONTEXTUAL VARIABLES -- MEAN VALUES OF ALL RESPONSES

(Responses recorded on a 5-point scale with 1 as most important, 5 as least important)

Most Important	Mean
Changes in enrollment in specific program	1.29
Change in overall enrollment in school	2.09
Dissatisfaction of school board with present programs	2.18
Important	
Change in approval of plans by state	2.29
Change in accrediting standards	2.33
Student dissatisfaction	2.34
Expansion or contraction of nearby industry	2.40
The availability of new equipment	2.43
Change in the level of local taxes for schools	2.47
Moderately Important	
Change in the level of state reimbursement	2.59
Information about job availability generally	2.57
Specific information about job availability to grads in particular occupational programs	2.57
A change in accepted standards within teaching profession	2.69
A change in the availability of federal grants	2.85
Least Important	
The availability of new texts or teaching equipment	2.91
Information about wages offered in different occupations	3.18

of wages offered in different occupations fell at the bottom of the scale. These may be unimportant, in the view of vocational educators, more because such data is not readily available or used, rather than its potential use and appropriateness for vocational education planning.

Information and Individual Influence

The information sources used and the contributions of ideas in planning suggest that both information and influence are highly concentrated in the hands of professional educators. Respondents were asked to judge the importance of particular groups in generating ideas for changes in vocational education and in having sufficient influence to have their ideas adopted, using a five-point scale ranging from high interest (5) to disinterest (1).

Mean scores for different groups ranged from 1.1, just above the lowest possible score, for the influence of teacher aides, to 4.3 for the influence of the superintendent. Influence and idea scores tended to be roughly hierarchical, but their clustering may also be indicative of social relationships within the school district which tend to influence the future of vocational education. The scores reported in Table VII-2 are plotted graphically in Figure VII-2.

The influence and idea scores are divided into four quadrants: (1) those having both influence and idea generation scores above the midpoint in the respective ranges; (2) those having high influence but generating fewer ideas; (3) those generating ideas but having less influence; and (4) those falling in the lower half of the range in both idea generation and influence.

Scores tend to cluster by types of individuals. In the highest position in both influence and idea generation are vocational educators and administrators -- the superintendent, the principal, and the vocational education teacher. Somewhat lower, but still within the high influence/high idea generation quadrant are supportive individuals working as counselors and central office staff personnel. Finally, close to the midpoints of the idea and influence rages are three organizations important to the recognition and confirmation of status on the school -- the vocational advisory board, the state education agency and the regional accrediting agency. These are the most potent influences outside the school district in shaping vocational education in the 15-county Consortium area.

The school board and its president are considered high in influence ratings, but relatively low in idea generation. Their idea-generation position is more nearly in line with that held by students, parents, and non-vocational teachers.

TABLE VII-2

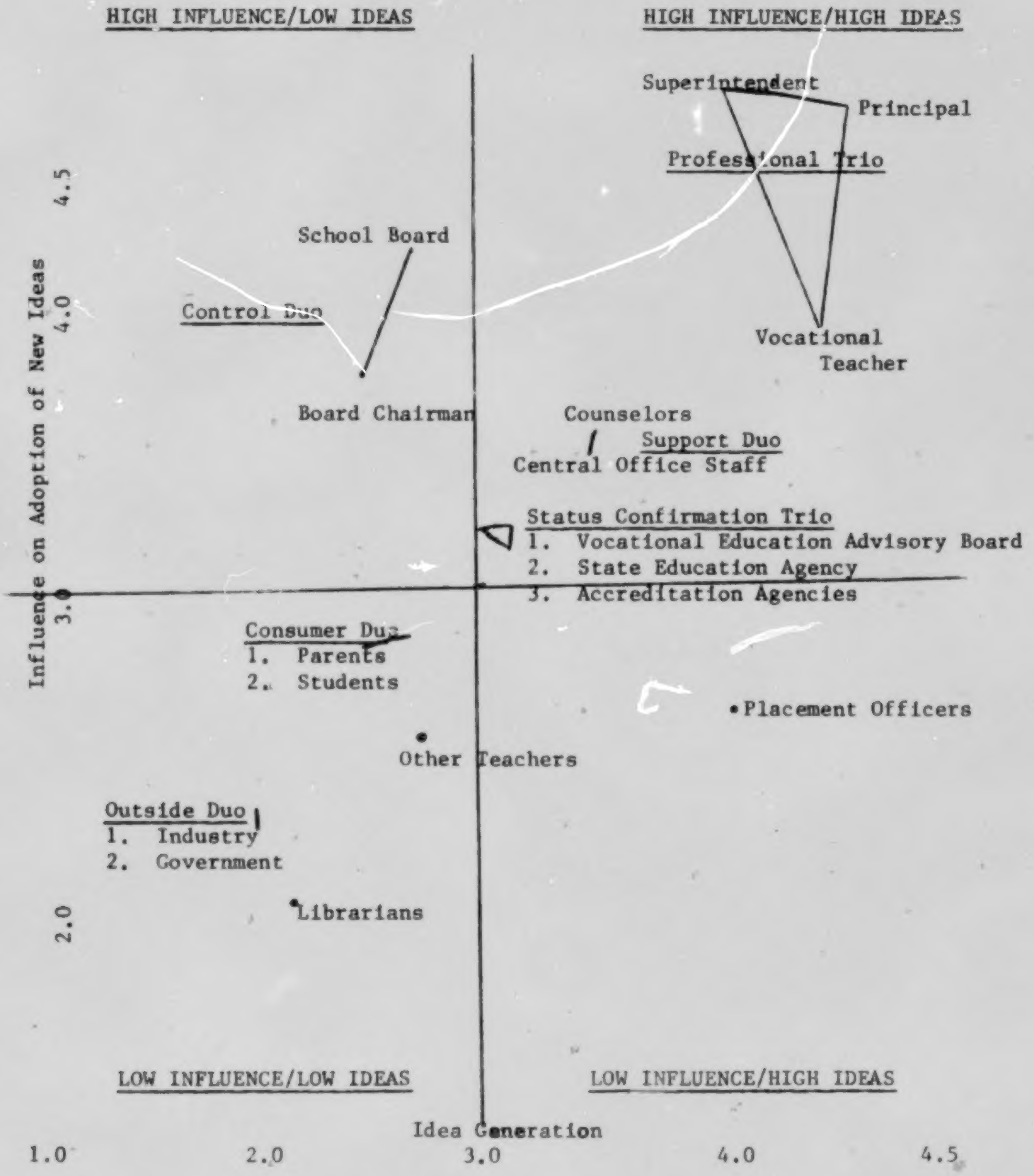
MEAN INFLUENCE AND IDEA SCORES FOR DIFFERENT GROUPS AS RELATED TO VOCATIONAL PLANNING

	Idea Score	Influence Score
1. Vocational teachers	3.732	3.500
2. Other teachers	2.556	2.545
3. None		
4. Teacher aides and paraprofessionals	1.444	1.161
5. Counselors	3.074	3.222
6. Placement officers*	3.429	2.375
7. Principal	3.852	4.296
8. Superintendent	3.404	4.333
9. Central office staff	2.972	3.171
10. Librarians and other nonclassroom personnel with certificated status	2.019	1.769
11. Students	2.411	2.571
12. Parents	2.250	2.554
13. Vocational Advisory Groups	2.745	2.868
14. School board	2.407	3.732
15. School board chairman	2.320	3.346
16. Representatives of companies which have regular school contacts	1.851	1.930
17. Government employees or officials with regular contact with school	1.940	2.078
18. State Education Agency liaison	2.768	2.982
19. Accrediting agencies	2.686	2.922

*Only 14 schools of 56 reported having a placement officer

FIGURE VII-2

INFLUENCE AND IDEA GENERATION FOR VOCATIONAL EDUCATION PLANNING



Where does this leave students, parents, and representatives of industry and government outside those on the school's formal advisory committee? All are in the low influence/low idea generation quadrant. They have not been included in the planning and decision process as much as professionals within the school system or formal agencies which review the school district's performance. Three other groups are also scattered unsystematically in the quadrant: nonvocational teachers, librarians and other professional in-school support staff and teacher aides.

Discussion: The Nature of the Present Planning System And Its Implications For Labor-Market Based Planning

Two questions should be considered concerning the state of the present planning system: first, whether the formal system is consistent with the system found in practice, and second, whether the undergirding assumptions of the present system are realistic.

The answer to the first question is in the main affirmative. The Division's vocational planning system appears to work in the field much as it is intended. Annual plans are submitted, site visits are undertaken and there are beginnings being made in the process of self-evaluation. There is obviously a certain amount of compliance behavior in which school districts plan because the state requires it. The presence of compliance behavior, however, does not necessarily preclude the presence of serious attempts to look at the future. Variations in the quality and intensity of the planning activity appear to be more closely related to individual and professional variables of an undetermined nature than to school district variables of size, wealth, or expenditure per student.

The tougher question is whether the undergirding assumptions of the present planning system are realistic. We suggest in the opening paragraphs of this chapter that some are weak. Education planners in southwestern Illinois tend to confirm that belief.

The present planning system assigns money and state approval to vocational education programs in high schools on the basis of student enrollment in particular occupational programs, and according to breadth of occupational programs offered in a school district. The system assumes that filling enrollment slots or desks is an important and appropriate criterion for funding.

The present mechanism ignores the school's potential as an institutional labor market intermediary. It pays little attention to the school's role in facilitating individual choice, preparation for and success in the job market. This emphasis on skill training overemphasizes the division of school resources between "traditional" vocational education programs at the expense of other decisions.

Certainly, attention is given to support systems -- counseling activity and the like -- which tend to mesh the school and labor market in the team evaluations of the schools, but these evaluations are not the ones that are tied to the continued financing of the schools. The critical questions asked on the annual plan revolve around offering an array of approved courses, and funding priorities are assigned to those courses and programs according to estimates of statewide manpower needs.

Because so much of a school's success in operating as a labor market intermediary rests in those areas where the school and the community meet, we suggest that planning ought to involve employers and their insight into local labor market needs. The school is of prime importance in mediating the flow of information and human relationships (person interactions) between students as potential workers and employers as potential providers of work. The school-based planning system needs to acknowledge its potential as a labor market intermediary in two ways:

1. The planning system must recognize that the success of vocational education in formal schooling depends on its ability to help students understand, prepare for, and make informed choices regarding occupational opportunities in the community and region in which they expect to live and work. Employers and the community must be consulted and included in the planning process.

2. The planning system must recognize that it deals with a world in which there are multiple and sometimes conflicting constituencies. Each of these have expectations about what schools should do and these notions sometimes collide.

At least five different goals were found operating within the southwestern Illinois labor market in our study:

1. Planning can be used to move vocational education toward meeting the personnel needs of existing employers.
2. Planning can be used to help students prepare for jobs that are satisfying to them and establish careers that are the most economically and socially productive.
3. Planning can be used to help increase the role of vocational education in the social and economic growth of the community and the region.
4. Planning can be used as a tool of inter-governmental accountability, a method by which the state can monitor its expenditures and can account for federal funds allocated to it.
5. Planning can be used as an organizational game, in which bureaucratic paper-pushing gives the appearance of activity and change when nothing is really happening.

Conflict between these goals is highly likely. Employers may prefer hiring low-paid workers from outside the region to paying higher wages to residents. Training students to take existing jobs in the area may limit their recognition of greater opportunities elsewhere. But many individuals also choose to live in local communities for social reasons and then search for jobs in that community's local labor market. Many people voluntarily limit their occupational objectives to the "best" jobs they can qualify for in a particular community or region. Plans directed by government agencies may benefit the agencies, but often make limited contribution to local labor market conditions and opportunities in a given region.

The state education agency, in opinions expressed in staff interviews, suggested planning goals including the development of an orderly and consistent method of allocating funding priorities, creation of a set of regions which could be easily instituted statewide using the same model, and applications of information generated by the Division's MIS.

The area colleges and schools present a wide range of attitudes about planning and different levels of activity in planning. In the words of one school principal who attended our meetings: "All these ideas you have are very nice, but I run a very small school. We have only one vocational teacher, and we teach what he knows. When he leaves we will get another teacher, and then we will teach what he knows."

It seems fair to characterize the school's attitude toward planning in general as one of healthy suspicion. The desire to cooperate, share information and approach problems jointly is tempered by the press of day-to-day activities within the schools and colleges.

Broader Perceptions of Vocational Education Planning

Our initial meetings with leaders in the business and industrial community indicated relatively little interest in vocational education and a certain amount of fatigue with plans for industrial and economic development in the original four-county 1975 field test area. Over the period of the last fifteen years, there have been numerous investigations into the possibility of economic development in the East St. Louis/Metro East area. These plans have largely led nowhere. Business people have become wary of beginning another such effort without assurances of continuing external support.

The number of proprietary schools in southwestern Illinois is small. They graduate few students compared to the numbers coming from the public schools. The largest manpower training programs other than the public schools and community colleges are those gathered under the CETA umbrella, and they are small outside East St. Louis. The relationship between these new organization and the existing schools and colleges is still unclear, both at the local and state level.

At the state level, the relationship between the State Education Agency and other agencies of state government vary with the times. Today education is being asked to justify the dollars it spends to a much greater extent than in the past. Educational planning is regarded by many people as a control mechanism or a method of helping to limit the share of total state revenue that is allocated to education.

These participants in the activity of vocational planning, their perceptions and goals for the project are summarized in Figure VII-3.

FIGURE VII-3

PERCEPTIONS OF VOCATIONAL EDUCATION PLANNING

Organization	Perception of Vocational Planning	Goal for the Project
1. Northwestern research team	problem-solving; use of planning to integrate education with economic development	bring individual schools together in developing schools in a labor market setting
2. State Division of Vocational/Technical Education	research, planning and policy seen as separate	control of resources; consistency between school districts; compliance with federal reporting standards; use of MIS data
3. Area colleges and schools	planning basically an activity undertaken to satisfy state requirements; of decision-making process within schools; change often constrained by lack of resources	maintain independence
4. Business and industry	fatigue with developing plans	none
5. CETA and manpower training agencies	newly formed and reorganized agencies whose mission and organization is still unclear; viewed as somewhat competitive with schools and DVTE in manpower and vocational education areas	
6. Other state government agencies	variable; generally hospitable	some consider planning as a control mechanism on budget allocation

Interlocking Interests

Differing perspectives often lead educators and employers to overlook the convergent goal they share in the labor market: an adequate supply of trained workers. A solution to the question of planning models may be a program that achieves portions of this goal for each of the involved parties. If agreement can be reached on areas of common interest between schools, state educational agencies, and business and noneducation government agencies, then the grounds for cooperation can be established. Such grounds for cooperation cannot revolve around the necessary but restricted needs of any one of the parties. Business and industry, for instance, have little interest in the internal reporting requirements of schools or state agencies.

Regional development appears as the single theme that can involve some of the interests of all of the parties involved. Each one stands to benefit in one way or another. The interests of schools, business, government and state agencies can meet like a set of overlapping circles, each party having interests not held in common with others but sharing the central focus of development through which all can profit.

Consider the nature of the interlocking interests. There are at least ten different ways in which economic and social development of regions in Illinois stand to benefit students, school organizations, the state government and potential employers.

1. Retaining students in the region after graduation. The flight of the young, and the loss of their skills, is associated with economic decline.
2. Increasing the tax base, or at least preventing its erosion. Attraction of new business and the expansion of existing ones have been encouraged by business, government and school organizations.
3. Increasing the number, quality and range of job opportunities available to graduates.
4. Preventing crime and civil disorder, which are generally related to poverty and unemployment.
5. Controlling public assistance costs.
6. Enhancing the quality of life. The term is inherently subjective, yet communities do define quality of life options by what they are willing to do in attracting or discouraging industry. Moreover, part of the quality of life is the quality of the job or career.

7. Protecting investments in existing factories, schools, stores, homes, and office buildings -- facilities which in strong regional economics would retain greater economic value.

8. Enhancing the interlocking interests of schools for the collection of information and the provision of job placement and counseling services.

9. Maximizing potential earnings. While in the short run employers may oppose general increases, there is no evidence that they will oppose development plans designed to increase earnings for good quality performance. There is, of course, the possibility that increases in earnings and the retention of graduates may conflict in the short run. Current income levels of a region may not be sufficient to retain labor. In some cases, communities have encouraged some of their graduates to seek employment elsewhere.

10. Facilitating cooperation with the equal opportunity statutes. The implementation of programs designed to aid those people who have historically been discriminated against are generally easier to achieve when there is an expanding local economy and when gains by one racial or ethnic group are not made at the expense of other groups.

There remains an underlying feasibility question. The factors that allow regional development are influenced by events and decisions within agencies and employers outside the region. State or federal policy in highway construction, taxes and social welfare legislation may have effects that regional organizations cannot change. Williams notes that the City of St. Louis alone cannot control many of the economic and demographic factors necessary to reverse a decline in the central city.[9] To a lesser degree, the same may be true of the entire region. However, the same reasoning would hold -- the number of factors capable of control would be greater with a regional approach than a municipal one. Furthermore, even if certain factors cannot be controlled, knowledge of the situation allows a more sophisticated reaction by vocational education planners.

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[9] Barbara R. Williams, St. Louis: A City and Its Suburbs, Santa Monica, California: Rand Corporation (1973), p. 31.

PART III

GATHERING LOCAL LABOR MARKET INFORMATION FOR REGIONAL PLANNING

Perhaps the most essential role of regional vocational education planning councils recommended in this study is reflected in the need for up to date local labor market information. Lawson (1973) reviews the need for such information in planning employment and training programs, and Wirtz and Goldstein (1975: 19-26) discuss the limitations of present methods for gathering such information. Former Secretary of Labor Wirtz argues most strongly in The Boundless Resource: A Prospectus for an Education-Work Policy (1976: 171) for a comprehensive "Occupational Outlook and Career Information Reporting System" to provide local projections of demand by occupation and industry and "a complete report of the number of people engaged in all types of education and training leading toward various careers."

The next two chapters address the job demand side of this equation through development and application of an employer-based methodology for surveying the employment expectations in a region. Chapter Eight reviews the evolution of this survey methodology and the procedures used in southwestern Illinois. Chapter Nine examines preliminary results of this initial application of the method.

Wirtz' second recommendation for a report of people training in various occupations remains a challenge to the Division as the MIS develops. Efforts should be made to link MIS data about future supply of labor by occupation with that of private and post-secondary sources of such training within Illinois.

CHAPTER EIGHT

EMPLOYER SURVEY PROCEDURES

Evolution of the Survey Form

The Employer Survey Form used in the 15-county southwestern Illinois survey evolved through several stages of preparation and review prior to its distribution to more than 2,000 firms in March 1976. The initial form was drafted in the fall of 1975 after review of relevant literature. Copies were presented to Consortium members in November for discussion. The primary problem identified in that meeting was that the form was too long -- 14 pages, including nine pages to list job titles covering a broad range of occupational categories spanning the employment patterns of all industries.

Based on the comments of Consortium members, the form was revised to include industry-specific job titles and categories. Each industry had a separate form listing job titles twice. First, description of education and work experience qualifications for hiring new employees in each job title listed were expanded. Second, employers were asked to project demand for new employees hired due to turnover in addition to newly created positions. The resulting form was shorter than the first version (8 to 10 pages), but the attempt to list industry-specific job titles still raised questions about the length of the form. This version of the form, however, was piloted with a sample of 50 employers from a school district in west suburban Cook County, Illinois Employer comments confirmed that the form was still too long.

The third major revision in the form included two methods of consolidation of information without loss of the detail to be provided by each employer. First, the section projecting demand for new employees and present work force was merged with the section describing education and work experience qualifications for each position. Second, the industry-specific job titles were listed on color-coded inserts rather than retaining a single, longer listing on the form. This shortened the form to a single six-page version, for all industries, plus each color-coded, industry-specific job list. This was the form used in southwest Illinois. A further refinement in the Consortium survey involved reduction of the projected demand for new employees to a single, total estimate of new placement opportunities in 1976 and 1977. The pilot study demonstrated that most employers were unable to project demand for new employees due to turnover separately from newly created jobs. This was especially true of smaller firms, in which manpower planning and staffing strategies tend to be responsive to short-term economic activities rather than long-range (more than one year) projections for growth.

Most of the changes in the form were focused on the portions initially creating the greatest problem -- job title lists, projections of job demand and present work force, and minimum qualifications for employment. The introductory pages providing general information and instructions changed very little, as did the final two pages.

The last portion of the form included a listing of job skill and training areas likely to be of benefit to each employer's present work force, and several general questions evaluating the adequacy of present educational programs and employer interest in helping improve job-related training in the Consortium area.

A further refinement of the Employer Survey Form occurred after distribution of the southwestern Illinois survey. The CETA (Comprehensive Employment and Training Act) program operated by the Evansville, Ind., Manpower Consortium conducted a similar employer survey in late spring of 1976. The major revision was to reduce post-coding time required in the Illinois surveys by pre-coding the form for delivery to keypunch operators after simple checking of survey forms returned by employers. The survey form now exists in a form which can be used with relative ease by employers of any industry and with an industry of any size, with minimal delay between receipt of the completed survey from employers and analysis-ready, keypunched data.

Sampling Strategies

Another crucial issue that required several stages in the development of procedure for the conduct of the Illinois Employer Survey involved identification and distribution of employers to receive survey forms and distribution of the forms to employers. Sampling methods evolved from selection of a "representative" sample for the Cook County pilot study in December, 1975. That initial sample began with 48 employers already involved in the school district's cooperative education program. Forms were hand-delivered to employers during visits for semester evaluations of cooperative education students. Even with this carefully selected sample of employers who were expected to be cooperative in the survey, the response rate three weeks after distribution was under 20 percent. Careful followup with non-responding employers identified several problems, especially involving the length of the middle two sections of the form. A second sample of 20 employers not involved with the school district was also added to the Cook County pilot study. A total of 24 of the 68 firms responded in the pilot, for a response rate of 35 percent. One unexpected result in the pilot study was that the "blind" sample of employers unknown to the school district responded at a higher rate than the hand-picked initial sample (the initial group's response rate was 27 percent; the "blind" sample responded at a 45 percent rate). This result was especially encouraging in preparation for the southwestern Illinois survey.

Identification of employers in 15 counties was a much more complex task than selection of a total of 68 employers in Cook County had been. The services of the Southwestern Illinois Metropolitan and Regional Planning Commission were used to assist with identification of approximately 2,000 employers with 11 or more employees in the 15 Consortium-area counties. The Commission relied initially on Dun and Bradstreet listings and the 1975 Illinois Manufacturer's Directory, then supplemented the lists with Polk's Directory of Financial Institutions, the Illinois Office of Education Directory of Public Schools, and the yellow pages of local telephone directories. The Commission provided a preliminary list of employers, organized by county, which included firm name, address, standard industrial code and estimated number of employees, where available. Employers were listed in random order for each of the 15 Consortium-area counties.

Project staff reorganized the employer lists by school district and industry within each county. Identification of each employer's local school district was based on location according to school district boundary maps provided by the Illinois Office of Education. Firms within each school district were then classified by industry using standard industrial codes.

After creation of the employer lists for each district, members of the Vocational Education Consortium from each district were asked to check and correct each list. Most lists required only minor revision at the February meeting of the Consortium; a few districts, such as Belleville, used telephone directories and local knowledge to revise their lists. This step in the process permitted creation of a corrected list of just under 2,000 employers. Perhaps the best evidence of the validity of this sample is that only 40 forms (2 percent) were returned as undeliverable from the 15-county sample.

The final check on sampling validity involved comparison of data presented in Tables VIII-1 and VIII-2. Column one of Table VIII-1 represents the balance of employers by industry and size according to County Business Patterns data gathered by the U.S. Census Bureau in 1973. Column two presents the distribution of forms mailed to employers in March, 1976. Column three presents the distribution of employers who returned usable forms for the survey. Manufacturing and services are slightly overrepresented, wholesale-retail trade is underrepresented,

TABLE VIII-1

COMPARISON OF COUNTY BUSINESS PATTERNS DISTRIBUTION OF EMPLOYERS BY INDUSTRY WITH VOCATIONAL EDUCATION CONSORTIUM EMPLOYER SURVEY SAMPLE IN 15 SOUTHWESTERN ILLINOIS COUNTIES

Industry	County Business Patterns Data	Employer Survey Forms Mailed	Employer Responses Analyzed	Response Rate for Industry
Agriculture	10	13	4	31%
% of Total	.3%	.6%	.6%	
Mining	61	50	13	26%
% of Total	2%	2%	2%	
Construction	281	176	45	26%
% of Total	8%	9%	7%	
Manufacturing	423	437	110	25%
% of Total	12%	21%	17%	
Transportation, Communication & Utilities	243	186	36	19%
% of Total	7%	9%	5%	
Wholesale & Retail Trade	1493	812	218	27%
% of Total	43%	40%	33%	
Banking, Insurance & Real Estate	238	110	72	65%
% of Total	7%	5%	11%	
Services[2]	694	262	168	64%
% of Total	20%	13%	25%	
TOTALS	3470	2047	666	

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[1] County Business Patterns, 1973 U.S. Bureau of the Census, Illinois CBP-72-15. U.S. Government Printing Office, Washington, D.C., 1974.

[2] Includes Education, Health and Medical, Government and Personal Services.

but most other industries are appropriately represented according to the number of employers in the region as described by County Business Patterns data in Table VIII-1.

Table VIII-2 reports the total number of employees within each industry in the County Business Patterns data in 1973 with the numbers of employees by industry in the Consortium's Employer Survey.

County Business Patterns data omit three groups of individuals actually still involved in the labor market for the 15-county Southwestern Illinois Consortium. First, the data does not include people who are self-employed; the Consortium area's greatest source of self-employment is from the agriculture in the region, but independent businesses represent an unknown portion of the local labor market omitted from County Business Patterns surveys. Second, the data does not reflect those individuals in the labor market who were unemployed at the time the survey was conducted. Third, the data does not include government workers. Comparison with County Business Patterns data has been facilitated in Table VIII-2 by separating government workers in the Southwestern Illinois Employer Survey from the subtotals for the region.

Survey results represented in column two also do not reflect self-employed and unemployed individuals in the region. A further restriction for survey data results from sampling strategies used to select employers. Firms with fewer than ten employees were not sent forms or asked to respond in the Southwestern Illinois Survey.

Comparison of the County Business Pattern data and Employer Survey sample in Table VIII-2 clearly indicates that only manufacturers,

TABLE VIII-2

COMPARISON OF COUNTY BUSINESS PATTERNS DISTRIBUTION OF WORK FORCE BY INDUSTRY WITH VOCATIONAL EDUCATION CONSORTIUM SURVEY IN 15 SOUTHWESTERN ILLINOIS COUNTIES

	Number of Employees	
Industry	County Business Patterns Work Force[1]	Employer Survey Work Force[2]
Agriculture	368	492
% of Total	.2%	1%
Mining	4087	2280
% of Total	2%	6%
Construction	9217	2027
% of Total	5%	5%
Manufacturing	65995	8458
% of Total	39%	21%
Transportation Communication & Utilities	11135	1009
% of Total	7%	3%
Wholesale & Retail Trade	41194	5151
% of Total	24%	13%
Banking, Insurance & Real Estate	7894	1810
% of Total	5%	5%
Services[3]	35059	18517
% of Total	21%	47%
Subtotal	168,397	39,744
Government Employed Workers		1,780
TOTAL		41,520

[1] County Business Patterns, 1973, U.S. Bureau of the Census, Illinois CBP-72-15. U.S. Government Printing Office, Washington, D.C., 1974.

[2] The 1780 Government Workers in the Consortium Survey are not included in the percent of total figures for column two.

[3] Includes Education, Health and Medical, and Personal Services.

wholesale and retail trade, and services differ markedly in their representation in the two sets of data. Just 21 percent of the employees of firms in the Consortium survey worked for manufacturers, while County Business Patterns data from 1970 indicated that nearly 40 percent of the region's jobs were in that industrial group. This may be due to changes in the number of manufacturers in the Consortium's labor market as some larger firms left the East St. Louis area during the past six years. It also may reflect reluctance on the part of manufacturers in the region to respond to the Consortium survey. Finally, manufacturers are concentrated in St. Clair and Madison counties, where the response rate from all employers was around 22 percent of the Consortium forms mailed out. Employers from the smaller, neighboring counties in the Consortium responded at twice that rate, or nearly 45 percent of the forms mailed out.

The underrepresentation of wholesale and retail firms in the Employer survey may result from two primary factors. The first is the lower response rate in the two larger counties, where most of the larger employers in wholesale and retail trade are likely to be located. The second factor is the size of firms in this industry. The Consortium survey respondents included 218 wholesale and retail firms employing just 5,151 people, or an average of 24 employees per firm. The 110 manufacturers who responded in the survey employ 8,458 people, or an average of 77 employees per firm. The 168 service industry employers who responded in the Consortium survey employ 18,517 people, or an average of 110 employees per firm. While this does not lead to conclusions about the average size of firms in those industries as a whole in the Consortium's 15-county region, it does suggest that larger firms may be more able or willing to respond to the questions raised in the survey. Smaller firms are less likely to do careful planning for future staffing needs, especially in those industries most dramatically influenced by the spending habits and discretionary income of employees of the larger employers in the region.

Finally, the results in both Tables indicate that service industry employers were overrepresented in the survey results. Sixty-four percent of the service industry employers responded in the Consortium survey, compared with an overall response rate of 33 percent for all employers.

Distribution of Forms

Once again distribution of 2,000 survey forms represented a much more complex task than had been true of the 68-employer pilot study. Several special problems were encountered that suggest future revisions in the survey procedures. One lesson learned in the pilot survey indicated the importance of including a due date on the forms mailed to employers. The results of all three surveys (Cook County, southwest Illinois and Indiana) indicate that the due date on the form should be from ten days to three weeks after forms are distributed to employers. Another purpose of the pilot study was drafting of supplementary materials and information for the survey. A press release for newspaper and radio-TV use, a letter from local school superintendents, and instructions for local school district survey coordinators were prepared in the pilot and used in the Southwestern Illinois Employer Survey.

Preparation of employer packets then included the survey forms, the appropriate color-coded, industry-specific job lists, a cover letter from the local school district or county superintendent, and, for larger employers, additional copies of the page on which present work force, projected job openings, and minimum educational and work experience requirements for hiring are listed. Preparations for the Consortium survey also included two optional steps: local district survey coordinators' names and phone numbers for employers with questions regarding the survey or its instructions, and two copies of employer name and address labels. One mailing label was placed on page one of the form; the other on the mailing envelope. Finally, each survey packet included a post-paid, addressed return envelope. Return postage costs were reduced through the use of a postal permit; several hundred dollars were saved because no fees were paid on return envelopes that went unused by employers who did not complete the survey. Copies of the materials used in the survey are in Appendix C.

Survey forms and materials were actually distributed in one of three ways. Several districts asked that Northwestern duplicate their enclosure letter from the local school superintendent; employer packets for those districts were mailed directly from the University. A second group of districts chose to receive the employer survey packets, minus the local letter explaining the purpose of the survey. They then inserted their local superintendent's letter and mailed the forms in the postage-paid envelopes provided by the project. The third method used involved 13 school districts from Madison County, where Educational Service Region Superintendent Harold Briggs prepared the cover letter and provided office space and assistance to local survey coordinators. Madison County Consortium members met in Briggs' office one-half day in March to assemble and mail packets for employers in their school districts. Northwestern project paid all printing, postage and materials costs for the survey, expect for preparation of the local superintendent letters in those districts choosing to print the letter themselves.

Employer Response and Followup

Approximately 550 surveys were returned within three weeks of initial distribution. Lists of non-responding firms were then prepared and mailed to local district survey coordinators. Each district coordinator was asked to contact firms which had not responded to the initial letter and packet mailed. Despite the pressures of time and ongoing activities, many districts' coordinators appeared to have been successful in helping resolve employers' questions. More than 180 additional responses were received in this manner, resulting in a total response from about 730 employers. Approximately 40 forms were returned undelivered because firms had gone out of business or moved to unknown addresses. Forms from 116 employers were missing portions of the information requested, and attempts to fill in missing information with telephone contacts with persons who completed the forms proved unsuccessful. Calls to nearly 25 percent of the employers missing information yielded no additional completed forms. Further followup was eliminated based on this lack of results. Approximately 550 fully completed forms were received from employers, and another 116 from employers who neglected to answer some questions. The total sample included all codable responses from these 666 employers.

Coding and Data Preparation

Among the technical improvements in the employer survey methodology completed in the Indiana survey (after completion of the Southwestern Illinois Vocational Education Consortium survey) related to coding and data preparation of returned, usable forms. The Consortium responses were hand-coded, with identifying information (industry, county, school district and employer number) repeated on each data card. General information from each employer for a directory of survey respondents was detached (See Volume II -- Resource Manual). Job titles, present work force and minimum educational and work experience requirements for each occupational classification listed by each employer were coded as a separate data card for analysis. This represented the bulk of data for the employer survey, with a total of 5,138 job titles listed by the 666 employers. An additional data card for each employer recorded employer interest in additional skill training for present employees, the employer's rating of local educational agencies' ability to meet their occupational and training needs, and employer interest in helping Consortium educators improve vocational and occupational education. Additional comments from employers were evaluated separately and are included in the summary of employer survey findings. (See Chapter Eleven)

As described earlier, the Indiana survey reduced coding time significantly by including keypunch format and instructions on the form. However, both forms retained a problem that requires careful checking of each employer response. This involved matching employer job titles with those included in each industry-specific list. A total of 346 census-based occupational classifications were listed on the forms, with from 60 to 110 industry-specific job titles from this list included on each color-coded insert page by industry. The matching problem was most acute for small employers in which one person may be employed with many overlapping duties defined as separate jobs for larger firms. The problem is best represented by the relationship between size of the firm and the level of job specificity. Each employer was asked to select the job title and code number representing the principle duty of employees in each classification. This appears to be the best available solution while still keeping the length of the survey form manageable.

Procedural Limitations

The conduct of three employer surveys within six months stimulated considerable progress in the methodology and procedure for such efforts to develop local labor market information. However, these refinements also demonstrated some procedural limitations unlikely to be solved by better forms or procedures.

One such difficulty contributing to the incompleteness of some employers' responses derives from employers' problems in forecasting future internal labor market changes, especially in firms largely affected by short-term economic changes. For example, a manufacturer may plan expansion of a plant or staff some time in advance, but a small retailer may depend on shorter term improvements in sales to justify expansion. The construction industry is similarly an employment area likely to fluctuate widely as the economy of the nation or a region improves or declines during short-term changes.

Another limitation involves employers' statements of minimum educational and work experience qualifications as they fill projected job openings. Each employer is free to set entry level qualifications for most positions. For example, one employer may prefer to hire high school graduates with some training in bookkeeping, then train them over time on the job so that individuals have the opportunity to qualify for higher level jobs in the firm. Another employer may choose to fill the same position with a more experienced or more expensively trained individual with college-level education in accounting. Either employer, however, may decide to amend these entry level requirements as the supply and demand for these skills vary in the local labor market.

A third limitation in employers' indications of experience arises in the level of detail desired for career path analysis. It is impossible to discern from the employer survey data in this study whether "work experience" required to qualify for a job opening refers to experience in the particular job, or experience in a sequence of jobs logically related to the new position. An employer may specify, for example, that store managers must have from three to ten years of work experience to qualify without indicating whether that experience needs only to be in the firm or industry rather than in the particular job classification. As with educational requirements, employers also are free to set different entry level qualifications, or to change their requirements as the labor market changes.

The final limitation to be addressed here (although there are likely to be others added through further experience with the methodology) concerns the employer's commitment to providing complete, accurate data for such a survey. Not every firm is sufficiently well-organized to complete the form in the 30 to 45 minutes anticipated. In addition, no control has been exercised over who in a firm completes such a survey. Little is known about the cost to the employer of completing such a form, but the labor cost would appear to consist of at least two factors. The first is the wage rate of the individual asked to complete it; the second is the amount of time the individual takes to complete the form. Some of the nonresponding firms may have failed to complete the form because they perceived that costs of completing it seemed unreasonable for the return to them. More than two-thirds of the employers who returned forms asked that they be provided a summary of its results indicating that at least for some, the incentives may have been built into the fact that such data might be available in the future.

CHAPTER NINE

EMPLOYER SURVEY RESULTS AND ANALYSIS

Perhaps the most essential step in presenting results of the Southwestern Illinois Employer Survey conducted by the Vocational Education Consortium is examination of the limitations and potential uses of such information. What is reported here represents more and better information than may have existed in the past for a local region, but that may serve only to increase the risk of misuse or misinterpretation. Much can be gained from examination, analysis and application of these results if the limitations of the survey and its results are kept in mind.

The first limitation has been referred to already in Chapter Eight. Survey sampling methods can and must be improved over the initial effort represented in this study. This includes employer response patterns, not only in terms of which industries are represented, but also whether the response within each industry is sufficient to be applied to projections for the industry as a whole.

The second limitation also has been considered in Chapter Eight, but bears repeating here. We found that at least three factors contribute to the ability of an employer to project demand for future employees. First is the size of the firm. Larger firms are more likely to plan ahead for major expansion or growth. However, little is known about the sophistication of employers in projecting their internal work force needs. This study asked employers to project only two years ahead -- instead of the five-year period often used -- in recognition of this limitation.

Another factor contributing to the ability of an employer to project future demand for workers by occupation is the type of industry of the firm. Primary impact employers in industries such as mining or manufacturing may make their internal work force decisions independently of other industrial growth in the region. The market for sale and distribution of the products they produce is much larger than the region in which they hire employees, enabling them to plan for future expansion in terms of the national or international demand for their products. Secondary impact employers, such as retail trade, banking, education and health, have a much smaller market for their services. They are dependent on the discretionary income and demand for their products and services among the residents of the region. They are less able, therefore, to anticipate growth which may result from expansion of primary impact employers in the region.

Two examples of this relationship are present now in the southwestern Illinois region surveyed in this study. The first is the new coal degasification facility under construction in the central part of the region. More than 2,000 new jobs are expected to result eventually from creation of this facility, but secondary impact employers in the region are not able to project their demand for new employees based on their respective shares of the spending of new employees of the firm. The second example is the political decision expected regarding location of a new St. Louis area airport. Location of the new airport in Illinois would have significant -- but unknown -- impact on employment opportunities throughout much of the southwestern Illinois region surveyed in this study.

The third factor contributing to the ability of an employer to project demand for future employees is equally true of macro-level projections derived from the Bureau of Labor Statistics and similar methods used to generate national and state data. Each attempt to project the future requires assumptions that conditions and institutional structures of the economy will not change drastically over short periods of time. Few employers projected the recession of 1974 and 1975. Projections of demand for future employment early in the 1970 through 1980 were based on a 4 percent unemployment rate for the nation; unemployment reached nearly 10 percent in some portions of the St. Louis SMSA in 1975, and is now expected to remain above 6.5 percent for at least the balance of this year. No one is certain how local employers interpret these national trends as they respond to surveys such as the one reported here.

Another limitation in this survey is also related to employer sophistication in projecting future demand. We found employers unable to distinguish between their needs for new employees to replace present workers who retire or resign and new employees required for newly created jobs. Only through further work with employers in similar surveys across the nation can many of these questions be answered.

Finally, only time will provide a test of the projections of the employers surveyed in southwestern Illinois in spring of 1976. This survey should be repeated in 1978 to examine the accuracy of employer projections and to update the two-year projections reflected in this report.

Present and Future Employment in Southwestern Illinois

Table IX-1 presents summary data describing present and projected employment from the Consortium's employer survey. The largest proportion of employment and projected opportunities is in the service industries. However, as noted in Chapter Eight, further analysis will be required after completion of this report to separate the service industries into major units -- education, health, personal services and government. The next largest source of employment among the firms responding in the Southwestern Illinois Employer Survey is manufacturing with 24 percent of current employment and 19 percent of projected new full-time jobs. Wholesale and retail trade is third with 10 percent of the full-time and 25 percent of the part-time jobs in 1975 among the responding firms, and 14 percent of full-time and 40 percent of part-time new jobs projected in 1976 and 1977. This may reflect a somewhat more optimistic outlook on the part of wholesalers and retailers than for other industries in which the share of projected job openings is less than or equal to their share of the present work force.

Perhaps the most meaningful summary of the data in Table IX-1 is the percentage of projected placement opportunities in 1976 and 1977, based on 1975 employment. The 666 employers who responded to the Southwestern Illinois Vocational Education Consortium survey indicated that they expect to employ 6,395 additional workers through replacement and newly created jobs. These employers expect turnover and new jobs to include 15 percent of their work force within the next two years, with opportunities nearly twice that for part-time jobs. They project total demand for new workers much greater than vocational educators in

Table IX-1

Southwestern Illinois Employer Survey
Jobs, Job Openings and Percent of Jobs Listed by Industry

	1975 Employees Listed			Projected Job Openings in 1976-77		
	Full-time Employees	Part-time Employees	TOTAL	Full-time Employees	Part-time Employees	TOTAL
Agriculture	363	129	492	58	53	111
n=4	1%	2%		1%	3%	
Mining	2263	17	2280	327	26	353
n=13	7%	.2%		7%	1%	
Construction	906	1121	2027	246	204	450
n=45	3%	16%		5%	11%	
Manufacturing	8180	278	8458	877	57	934
n=110	24%	4%		19%	3%	
Transportation	943	66	1009	45	8	53
n=36	3%	1%		1%	.4%	
Wholesale Retail Trade	3407	1744	5151	661	746	1407
n=218	10%	25%		14%	40%	
Banking Insurance	1520	290	1810	266	125	391
n=72	4%	4%		6%	7%	
Service	15314	3203	18517	1787	543	2230
n=157	44%	46%		39%	29%	
Government	1629	151	1780	360	106	466
n=11	5%	2%		8%	6%	
TOTALS	34525	6999	41524	4627	1868	6395
n=666	83%	17%		72%	28%	
Percentage of Projected Placement Opportunities in 1976-77				13%	27%	15%

the Southwestern Illinois Consortium anticipated without such data prior to the survey.

The next question in evaluating placement opportunities is reflected in Table IX-2. The 666 employers in this survey listed a total of 346 job titles 5,138 times. Each employer's listing of a given job title is counted as a separate unit in Tables IX-2 through IX-6 to preserve the opportunity for each employer to set education and work experience qualifications for each position independently of all other employers.

Table IX-2 reports the distribution of educational requirements preferred in hiring new employees by industry. The first number in each cell is the count, or number of times employers in the sample specified a particular level of training as an entry level qualification for the job title listed. The second number in each is the percentage of the row represented by the count, or the proportion of job titles within the educational level in that industry. The third number in each cell is the column percentage, or the proportion of job titles within the industry specifying that level of education as an entry level qualification. The row totals represent the distribution of all job titles by educational level; the bottom row presents the distribution of those 5,138 job titles across industries.

Examination of these results reveals that 43 percent of the job titles listed by employers specified high school graduation as the minimum educational requirement, 16.7 percent specified four or more years of college, 15.2 percent specified less than four years of high school, and the remaining 25 percent were distributed among the remaining levels and sources of training. A special note may be necessary

Table IX-2 Education by Industry

```
                INDUSTRY
        COUNT   I
        ROW PCT IAGRICUL- MINING    BUILDING MANUFAC- TRANS-    RETAIL    BANKING- SERVICES GOVNMNT    ROW
        COL PCT I  TURE              TRADES   TURING  COMMUN    TRADE     INSURNCE                     TOTAL
                I      1.I      2.I      3.I      4.I      5.I      6.I      7.I      8.I      9.I
EDUC3   --------I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           1.   I     4  I    14  I    39  I   222  I    12  I   153  I    30  I   293  I    15  I   782
 UNDER 4 YRS HS I    .5  I   1.8  I   5.0  I  28.4  I   1.5  I  19.6  I   3.8  I  37.5  I   1.9  I  15.2
                I   8.2  I   6.9  I  13.7  I  21.8  I   6.4  I  12.6  I   8.0  I  17.1  I  16.7  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           2.   I    10  I     3  I     7  I    43  I     1  I    44  I     4  I    52  I    15  I   179
 HS VOCATIONAL EDI   5.6  I   1.7  I   3.9  I  24.0  I    .6  I  24.6  I   2.2  I  29.1  I   8.4  I   3.5
                I  20.4  I   1.5  I   2.5  I   4.2  I    .5  I   3.6  I   1.1  I   3.0  I  16.7  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           3.   I    20  I   120  I    97  I   397  I   111  I   679  I   214  I   544  I    28  I  2210
 HS GRADUATE    I    .9  I   5.4  I   4.4  I  18.0  I   5.0  I  30.7  I   9.7  I  24.6  I   1.3  I  43.0
                I  40.8  I  59.4  I  34.2  I  39.0  I  59.0  I  55.9  I  56.9  I  31.7  I  31.1  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           4.   I     4  I     2  I    22  I    60  I    17  I    46  I     9  I    80  I     6  I   246
 TECHNICAL SCHOOL I  1.6  I    .8  I   8.9  I  24.4  I   6.9  I  18.7  I   3.7  I  32.5  I   2.4  I   4.8
                I   8.2  I   1.0  I   7.7  I   5.9  I   9.0  I   3.8  I   2.4  I   4.7  I   6.7  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           5.   I     1  I    10  I    73  I    88  I    10  I   113  I    21  I    64  I     1  I   381
 APPRENTICESHIP I    .3  I   2.6  I  19.2  I  23.1  I   2.6  I  29.7  I   5.5  I  16.8  I    .3  I   7.4
                I   2.0  I   5.0  I  25.7  I   8.7  I   5.3  I   9.3  I   5.6  I   3.7  I   1.1  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           6.   I     1  I    18  I    18  I    45  I    16  I    69  I    26  I    85  I     1  I   279
 COMMUNITY COLLEG I   .4  I   6.5  I   6.5  I  16.1  I   5.7  I  24.7  I   9.3  I  30.5  I    .4  I   5.4
                I   2.0  I   8.9  I   6.3  I   4.4  I   8.5  I   5.7  I   6.9  I   5.0  I   1.1  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           7.   I     4  I     3  I    13  I    31  I     9  I    49  I    21  I    67  I     2  I   199
 1-3 YRS COLLEGE I   2.0  I   1.5  I   6.5  I  15.6  I   4.5  I  24.6  I  10.6  I  33.7  I   1.0  I   3.9
                I   8.2  I   1.5  I   4.6  I   3.0  I   4.8  I   4.0  I   5.6  I   3.9  I   2.2  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           8.   I     1  I    15  I     5  I   108  I    10  I    50  I    42  I   175  I    17  I   423
 COLLEGE GRADUATE I   .2  I   3.5  I   1.2  I  25.5  I   2.4  I  11.8  I   9.9  I  41.4  I   4.0  I   8.2
                I   2.0  I   7.4  I   1.8  I  10.6  I   5.3  I   4.1  I  11.2  I  10.2  I  18.9  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
           9.   I     4  I    17  I    10  I    23  I     2  I    12  I     9  I   357  I     5  I   439
 OVER 4 YRS COLLE I   .9  I   3.9  I   2.3  I   5.2  I    .5  I   2.7  I   2.1  I  81.3  I   1.1  I   8.5
                I   8.2  I   8.4  I   3.5  I   2.3  I   1.1  I   1.0  I   2.4  I  20.8  I   5.6  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
         COLUMN      49      202      284     1017      188     1215      376     1717       90     5138
          TOTAL     1.0      3.9      5.5     19.8      3.7     23.6      7.3     33.4      1.8    100.0
```

with regard to the "high school vocational education" row in each of the tables presenting industry by entry level qualifications. Each employer was free to specify more than one level or source of training in describing the minimum qualifications for each job title. While many employers in the Indiana survey did do so, none of the 666 southwestern Illinois employer survey respondents did. Illinois employers did not distinguish, therefore, between high school graduates with vocational education training and those without it. They placed little value, as a group, on vocational education training as they perceived it while completing this survey.

Before attempting to assign specific meaning to this result, however, it may be appropriate to note that vocational education was not defined or described for employers in the survey instrument. Each employer responded based on his or her own understanding of the types of training involved and the frequency with which they use it as a requirement in hiring to fill specific job titles. The survey cannot be used to assign value to this response due to the level of information employers may have about vocational education in the region, or the actual weight they assign to vocational education training in filling positions in their firms.

Tables IX-3 through IX-6 add the dimension of work experience to the entry level requirements employers use when hiring new employees. Table IX-3 reports the education requirements by industry, as in Table IX-2, but only for those 2,683 job titles listed with one year of work experience as a requirement as well. These 2,683 job titles represent 52 percent of the total job titles

Table IX-3 Education by Industry for Job Titles Requiring Less than One Year of Work Experience

COUNT ROW PCT COL PCT	AGRICUL-TURE 1.	MINING 2.	BUILDING TRADES 3.	MANUFAC-TURING 4.	TRANS-COMMUN 5.	RETAIL TRADE 6.	BANKING-INSURNCE 7.	SERVICES 8.	GOVNMNT 9.	ROW TOTAL
1. UNDER 4 YRS HS	2 .3 10.0	9 1.4 13.0	32 4.9 28.3	178 27.5 36.0	11 1.7 16.9	136 21.0 23.8	25 3.9 14.1	240 37.0 21.7	15 2.3 22.1	648 24.2
2. HS VOCATIONAL ED	7 5.5 35.0	3 2.4 4.3	3 2.4 2.7	27 21.3 5.5	0 0 0	31 24.4 5.4	3 2.4 1.7	41 32.3 3.7	12 9.4 17.6	127 4.7
3. HS GRADUATE	7 .6 35.0	40 3.4 58.0	35 3.0 31.0	198 17.0 40.0	38 3.3 58.5	329 28.3 57.6	124 10.7 70.1	372 32.0 33.7	21 1.8 30.9	1164 43.4
4. TECHNICAL SCHOOL	2 1.8 10.0	0 0 0	10 8.8 8.8	27 23.7 5.5	7 6.1 10.8	15 13.2 2.6	5 4.4 2.8	47 41.2 4.3	1 .9 1.5	114 4.2
5. APPRENTICESHIP	0 0 0	1 .7 1.4	25 17.2 22.1	34 23.4 6.9	2 1.4 3.1	39 26.9 6.8	9 6.2 5.1	34 23.4 3.1	1 .7 1.5	145 5.4
6. COMMUNITY COLLEG	1 1.2 5.0	8 9.9 11.6	0 0 0	8 9.9 1.6	3 3.7 4.6	9 11.1 1.6	2 2.5 1.1	49 60.5 4.4	1 1.2 1.5	81 3.0
7. 1-3 YRS COLLEGE	1 1.9 5.0	0 0 0	2 3.8 1.8	4 7.5 .8	2 3.8 3.1	6 11.3 1.1	3 5.7 1.7	34 64.2 3.1	1 1.9 1.5	53 2.0
8. COLLEGE GRADUATE	0 0 0	3 1.9 4.3	1 .6 .9	18 11.6 3.6	1 .6 1.5	5 3.2 .9	6 3.9 3.4	108 69.7 9.8	13 8.4 19.1	155 5.8
9. OVER 4 YRS COLLE	0 0 0	5 2.6 7.2	5 2.6 4.4	1 .5 .2	1 .5 1.5	1 .5 .2	0 0 0	180 91.8 16.3	3 1.5 4.4	196 7.3
COLUMN TOTAL	20 .7	69 2.6	113 4.2	495 18.4	65 2.4	571 21.3	177 6.6	1105 41.2	68 2.5	2683 100.0

listed by all employers responding in the survey. The results of this analysis depart from those in Table IX-2 primarily in the distribution of job titles in the lower levels of education and training. While 43 percent still require high school graduation, 24 percent are for workers with less than a high school diploma and 13 percent are for college graduates with less than one year of work experience.

This pattern shifts dramatically in Table IX-4, which reports education by industry job requirements for those job titles requiring from one to three years of work experience. The 1,479 job titles listed in this table reflect 29 percent of the 5,138 listed in Table IX-2. The proportion requiring high school graduation is again stable (45 percent), but the job titles open to those without high school diplomas is reduced to seven percent. Sixteen percent of the job titles for jobs requiring from one to three years of work experience also require four or more years of college, with each of the sources and levels of training between high school graduation and college graduation more highly rated than for Tables IX-2 and IX-3.

Table IX-5 reflects a continuation in this trend. Just 755 of the 5138 job titles in Table IX-2 require from three to ten years of work experience, or 15 percent. Perhaps more significantly, only 3 percent of those are open to people who have not completed high school, while 27 percent are open to individuals with four or more years of college. Finally, high school graduation qualifies an individual for only 36 percent of these positions, with most employers preferring applicants with training beyond high school when they look for new employees to fill vacancies in their firms.

Table IX-4 Education by Industry for Job Titles Requiring One to Three Years of Work Experience

```
                INDUSTRY
         COUNT  I
       ROW PCT  IAGRICUL- MINING    BUILDING MANUFAC- TRANS-    RETAIL    BANKING- SERVICES GOVNMNT     ROW
       COL PCT  I  TURE             TRADES   TURING   COMMUN    TRADE     INSURNCE                     TOTAL
                I      1.I      2.I      3.I      4.I      5.I      6.I      7.I      8.I      9.I
EDUC3   --------I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            1.  I     2  I     4  I     4  I    36  I     0  I    11  I     4  I    43  I     0  I    104
  UNDER 4 YRS HS I   1.9  I   3.8  I   3.8  I  34.6  I     0  I  10.6  I   3.8  I  41.3  I     0  I    7.0
                I  12.5  I   5.4  I   4.3  I  11.4  I     0  I   2.8  I   4.1  I  10.6  I     0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            2.  I     0  I     0  I     2  I    11  I     1  I     7  I     1  I     8  I     3  I     33
  HS VOCATIONAL ED I   0  I     0  I   6.1  I  33.3  I   3.0  I  21.2  I   3.0  I  24.2  I   9.1  I    2.2
                I     0  I     0  I   2.1  I   3.5  I   1.5  I   1.8  I   1.0  I   2.0  I  30.0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            3.  I    10  I    41  I    35  I   115  I    42  I   229  I    55  I   139  I     0  I    666
  HS GRADUATE   I   1.5  I   6.2  I   5.3  I  17.3  I   6.3  I  34.4  I   8.3  I  20.9  I     0  I   45.0
                I  62.5  I  55.4  I  37.2  I  36.3  I  63.6  I  57.5  I  56.1  I  34.2  I     0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            4.  I     2  I     2  I     8  I    21  I     6  I    24  I     3  I    26  I     2  I     94
  TECHNICAL SCHOOL I 2.1  I   2.1  I   8.5  I  22.3  I   6.4  I  25.5  I   3.2  I  27.7  I   2.1  I    6.4
                I  12.5  I   2.7  I   8.5  I   6.6  I   9.1  I   6.0  I   3.1  I   6.4  I  20.0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            5.  I     1  I     7  I    28  I    39  I     2  I    46  I     7  I    14  I     0  I    144
  APPRENTICESHIP I    .7  I   4.9  I  19.4  I  27.1  I   1.4  I  31.9  I   4.9  I   9.7  I     0  I    9.7
                I   6.3  I   9.5  I  29.8  I  12.3  I   3.0  I  11.6  I   7.1  I   3.4  I     0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            6.  I     0  I     6  I     6  I    27  I     7  I    42  I    10  I    24  I     0  I    122
  COMMUNITY COLLEG I   0  I   4.9  I   4.9  I  22.1  I   5.7  I  34.4  I   8.2  I  19.7  I     0  I    8.2
                I     0  I   8.1  I   6.4  I   8.5  I  10.6  I  10.6  I  10.2  I   5.9  I     0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            7.  I     1  I     2  I     5  I    14  I     5  I    21  I     8  I    17  I     1  I     74
  1-3 YRS COLLEGE I  1.4  I   2.7  I   6.8  I  18.9  I   6.8  I  28.4  I  10.8  I  23.0  I   1.4  I    5.0
                I   6.3  I   2.7  I   5.3  I   4.4  I   7.6  I   5.3  I   8.2  I   4.2  I  10.0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            8.  I     0  I     6  I     3  I    50  I     2  I    14  I     6  I    43  I     3  I    127
  COLLEGE GRADUATE I   0  I   4.7  I   2.4  I  39.4  I   1.6  I  11.0  I   4.7  I  33.9  I   2.4  I    8.6
                I     0  I   8.1  I   3.2  I  15.8  I   3.0  I   3.5  I   6.1  I  10.6  I  30.0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
            9.  I     0  I     6  I     3  I     4  I     1  I     4  I     4  I    92  I     1  I    115
  OVER 4 YRS COLLE I   0  I   5.2  I   2.6  I   3.5  I    .9  I   3.5  I   3.5  I  80.0  I    .9  I    7.8
                I     0  I   8.1  I   3.2  I   1.3  I   1.5  I   1.0  I   4.1  I  22.7  I  10.0  I
               -I--------I--------I--------I--------I--------I--------I--------I--------I--------I
        COLUMN        16       74       94      317       66      398       98      406       10     1479
         TOTAL       1.1      5.0      6.4     21.4      4.5     26.9      6.6     27.5       .7    100.0
```

Table IX-5 Education by Industry for Job Titles Requiring Three to Ten Years of Work Experience

	COUNT ROW PCT COL PCT	AGRICUL- TURE 1.	MINING 2.	BUILDING TRADES 3.	MANUFAC- TURING 4.	TRANS- COMMUN 5.	RETAIL TRADE 6.	BANKING- INSURNCE 7.	SERVICES 8.	GOVNMNT 9.	ROW TOTAL
1. UNDER 4 YRS HS	COUNT	0	1	3	6	1	2	0	10	0	23
	ROW PCT	0	4.3	13.0	26.1	4.3	8.7	0	43.5	0	3.0
	COL PCT	0	2.1	4.5	4.0	2.2	1.2	0	5.7	0	
2. HS VOCATIONAL ED	COUNT	3	0	2	5	0	5	0	3	0	18
	ROW PCT	16.7	0	11.1	27.8	0	27.8	0	16.7	0	2.4
	COL PCT	25.0	0	3.0	3.3	0	3.1	0	1.7	0	
3. HS GRADUATE	COUNT	3	33	21	54	24	71	32	28	7	273
	ROW PCT	1.1	12.1	7.7	19.8	8.8	26.0	11.7	10.3	2.6	36.2
	COL PCT	25.0	68.8	31.3	36.0	53.3	44.1	37.2	16.1	58.3	
4. TECHNICAL SCHOOL	COUNT	0	0	4	11	4	6	1	6	3	35
	ROW PCT	0	0	11.4	31.4	11.4	17.1	2.9	17.1	8.6	4.6
	COL PCT	0	0	6.0	7.3	8.9	3.7	1.2	3.4	25.0	
5. APPRENTICESHIP	COUNT	0	2	19	14	6	21	4	12	0	78
	ROW PCT	0	2.6	24.4	17.9	7.7	26.9	5.1	15.4	0	10.3
	COL PCT	0	4.2	28.4	9.3	13.3	13.0	4.7	6.9	0	
6. COMMUNITY COLLEG	COUNT	0	1	10	9	4	15	11	11	0	61
	ROW PCT	0	1.6	16.4	14.8	6.6	24.6	18.0	18.0	0	8.1
	COL PCT	0	2.1	14.9	6.0	8.9	9.3	12.8	6.3	0	
7. 1-3 YRS COLLEGE	COUNT	2	1	6	10	2	17	9	15	0	62
	ROW PCT	3.2	1.6	9.7	16.1	3.2	27.4	14.5	24.2	0	8.2
	COL PCT	16.7	2.1	9.0	6.7	4.4	10.6	10.5	8.6	0	
8. COLLEGE GRADUATE	COUNT	1	5	1	28	4	19	24	20	1	103
	ROW PCT	1.0	4.9	1.0	27.2	3.9	18.4	23.3	19.4	1.0	13.6
	COL PCT	8.3	10.4	1.5	18.7	8.9	11.8	27.9	11.5	8.3	
9. OVER 4 YRS COLLE	COUNT	3	5	1	13	0	5	5	69	1	102
	ROW PCT	2.9	4.9	1.0	12.7	0	4.9	4.9	67.6	1.0	13.5
	COL PCT	25.0	10.4	1.5	8.7	0	3.1	5.8	39.7	8.3	
COLUMN TOTAL		12	48	67	150	45	161	86	174	12	755
		1.6	6.4	8.9	19.9	6.0	21.3	11.4	23.0	1.6	100.0

Table IX-6 further emphasizes the findings reported earlier in Tables IX-3 through IX-5. Just over 4 percent of the 5,138 total job titles listed by the employers in the southwestern Illinois survey require ten or more years of work experience as an entry level qualification. Forty-eight percent of these are open to high school graduates, 29 percent prefer applicants with four or more years of college, and just three percent are open to people with less than four years of high school.

These five tables clearly reflect the value employers place on education and training. One of the surprises to many vocational educators in the Consortium is reflected in the fact that employers do not appear willing to substitute work experience for education among applicants with less than four years of high school. A second major finding in these results is that only 18 percent of the job titles listed require three or more years of work experience. More than half the jobs in the responding firms are open to students with less than one year of work experience, and nearly 30 percent are open to those with from one to three years of work experience.

The importance employers placed on education leads to analysis of two additional questions in the survey as reported in Tables IX-7 and IX-8. The first of these reports employer satisfaction with the existing educational facilities of the region; nearly 90 percent rate them as meeting their needs "fairly well" or "very well." The second reports their response to a request to assist schools in improving such training; 310, or 55 percent, of the responding firms are interested in providing such assistance to the Consortium.

Table IX-6

Education by Industry for Job Titles Requiring Over Ten Years Work Experience

```
           COUNT  I
         ROW PCT  IAGRICUL- MINING    BUILDING MANUFAC- TRANS-    RETAIL    BANKING- SERVICES    ROW
         COL PCT  I  TURE              TRADES   TURING  COMMUN    TRADE     INSURNCE            TOTAL
                  I      1.I      2.I      3.I      4.I      5.I      6.I      7.I      8.I
         --------I--------I--------I--------I--------I--------I--------I--------I--------I
              1.  I     0  I     0  I     0  I     2  I     0  I     4  I     1  I     0  I      7
 UNDER 4 YRS HS   I     0  I     0  I     0  I  28.6  I     0  I  57.1  I  14.3  I     0  I    3.2
                  I     0  I     0  I     0  I   3.6  I     0  I   4.7  I   6.7  I     0  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              2.  I     0  I     0  I     0  I     0  I     0  I     1  I     0  I     0  I      1
 HS VOCATIONAL ED I     0  I     0  I     0  I     0  I     0  I 100.0  I     0  I     0  I     .5
                  I     0  I     0  I     0  I     0  I     0  I   1.2  I     0  I     0  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              3.  I     0  I     6  I     6  I    30  I     7  I    50  I     3  I     5  I    107
 HS GRADUATE      I     0  I   5.6  I   5.6  I  28.0  I   6.5  I  46.7  I   2.8  I   4.7  I   48.4
                  I     0  I  54.5  I  60.0  I  54.5  I  58.3  I  58.8  I  20.0  I  15.6  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              4.  I     0  I     0  I     0  I     1  I     0  I     1  I     0  I     1  I      3
 TECHNICAL SCHOOL I     0  I     0  I     0  I  33.3  I     0  I  33.3  I     0  I  33.3  I    1.4
                  I     0  I     0  I     0  I   1.8  I     0  I   1.2  I     0  I   3.1  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              5.  I     0  I     0  I     1  I     1  I     0  I     7  I     1  I     4  I     14
 APPRENTICESHIP   I     0  I     0  I   7.1  I   7.1  I     0  I  50.0  I   7.1  I  28.6  I    6.3
                  I     0  I     0  I  10.0  I   1.8  I     0  I   8.2  I   6.7  I  12.5  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              6.  I     0  I     3  I     2  I     1  I     2  I     3  I     3  I     1  I     15
 COMMUNITY COLLEG I     0  I  20.0  I  13.3  I   6.7  I  13.3  I  20.0  I  20.0  I   6.7  I    6.8
                  I     0  I  27.3  I  20.0  I   1.8  I  16.7  I   3.5  I  20.0  I   3.1  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              7.  I     0  I     0  I     0  I     3  I     0  I     5  I     1  I     1  I     10
 1-3 YRS COLLEGE  I     0  I     0  I     0  I  30.0  I     0  I  50.0  I  10.0  I  10.0  I    4.5
                  I     0  I     0  I     0  I   5.5  I     0  I   5.9  I   6.7  I   3.1  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              8.  I     0  I     1  I     0  I    12  I     3  I    12  I     6  I     4  I     38
 COLLEGE GRADUATE I     0  I   2.6  I     0  I  31.6  I   7.9  I  31.6  I  15.8  I  10.5  I   17.2
                  I     0  I   9.1  I     0  I  21.8  I  25.0  I  14.1  I  40.0  I  12.5  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
              9.  I     1  I     1  I     1  I     5  I     0  I     2  I     0  I    16  I     26
 OVER 4 YRS COLLE I   3.8  I   3.8  I   3.8  I  19.2  I     0  I   7.7  I     0  I  61.5  I   11.8
                  I 100.0  I   9.1  I  10.0  I   9.1  I     0  I   2.4  I     0  I  50.0  I
                 -I--------I--------I--------I--------I--------I--------I--------I--------I
          COLUMN        1       11       10       55       12       85       15       32      221
           TOTAL       .5      5.0      4.5     24.9      5.4     38.5      6.8     14.5    100.0
```

Table IX-7

How well do existing educational facilities in the area from which you hire meet the training needs of your organization?

```
                          PRESENT TRAINING MEETS NEEDS
              COUNT   I
              ROW PCT INOT AT    POORLY    FAIRLY    VERY          ROW
              COL PCT IALL                 WELL      WELL          TOTAL
                      I     1.I      2.I      3.I      4.I
 INDUSTRY     --------I--------I--------I--------I--------I
                   1. I     0  I     2  I     2  I     0  I       4
   AGRICULTURE        I     0  I  50.0  I  50.0  I     0  I      .6
                      I     0  I   3.3  I    .5  I     0  I
                     -I--------I--------I--------I--------I
                   2. I     0  I     1  I     8  I     2  I      11
   MINING             I     0  I   9.1  I  72.7  I  18.2  I     1.7
                      I     0  I   1.6  I   2.1  I   1.2  I
                     -I--------I--------I--------I--------I
                   3. I     2  I     3  I    26  I     9  I      40
   CONSTRUCTION       I   5.0  I   7.5  I  65.0  I  22.5  I     6.3
                      I  11.8  I   4.9  I   6.7  I   5.3  I
                     -I--------I--------I--------I--------I
                   4. I     7  I    19  I    58  I    18  I     102
   MANUFACTURING      I   6.9  I  18.6  I  56.9  I  17.6  I    16.1
                      I  41.2  I  31.1  I  15.0  I  10.6  I
                     -I--------I--------I--------I--------I
                   5. I     0  I     3  I    22  I    10  I      35
   TRANS-COMMUN       I     0  I   8.6  I  62.9  I  28.6  I     5.5
                      I     0  I   4.9  I   5.7  I   5.9  I
                     -I--------I--------I--------I--------I
                   6. I     5  I    21  I   138  I    46  I     210
   WHOLESALE-RETAIL   I   2.4  I  10.0  I  65.7  I  21.9  I    33.1
                      I  29.4  I  34.4  I  35.7  I  27.1  I
                     -I--------I--------I--------I--------I
                   7. I     0  I     0  I    51  I    21  I      72
   BANKING INSURANC   I     0  I     0  I  70.8  I  29.2  I    11.3
                      I     0  I     0  I  13.2  I  12.4  I
                     -I--------I--------I--------I--------I
                   8. I     3  I    12  I    74  I    61  I     150
   SERVICES           I   2.0  I   8.0  I  49.3  I  40.7  I    23.6
                      I  17.6  I  19.7  I  19.1  I  35.9  I
                     -I--------I--------I--------I--------I
                   9. I     0  I     0  I     8  I     3  I      11
   GOVERNMENT         I     0  I     0  I  72.7  I  27.3  I     1.7
                      I     0  I     0  I   2.1  I   1.8  I
                     -I--------I--------I--------I--------I
               COLUMN      17       61      387      170        635
               TOTAL      2.7      9.6     60.9     26.8      100.0

 NUMBER OF MISSING OBSERVATIONS =       32
```

Table IX-8

Would you or your organization be interested in participating in discussions to improve occupational education and training in local high schools, colleges and technical schools?

```
                          WILLING TO ASSIST SCHOOLS
                   COUNT  I
                 ROW PCT  INC        YES          ROW
                 COL PCT  I                       TOTAL
                          I      1.I      2.I
INDUSTRY         --------I--------I--------I
                       1. I      1 I      2 I       3
   AGRICULTURE            I   33.3 I   66.7 I      .5
                          I     .4 I     .6 I
                         -I--------I--------I
                       2. I      5 I      5 I      10
   MINING                 I   50.0 I   50.0 I     1.8
                          I    2.0 I    1.6 I
                         -I--------I--------I
                       3. I     20 I     19 I      39
   CONSTRUCTION           I   51.3 I   48.7 I     7.0
                          I    8.0 I    6.1 I
                         -I--------I--------I
                       4. I     45 I     44 I      89
   MANUFACTURING          I   50.6 I   49.4 I    15.9
                          I   18.0 I   14.2 I
                         -I--------I--------I
                       5. I     14 I     14 I      28
   TRANS-COMMUN           I   50.0 I   50.0 I     5.0
                          I    5.6 I    4.5 I
                         -I--------I--------I
                       6. I     91 I     90 I     181
   WHOLESALE-RETAIL       I   50.3 I   49.7 I    32.3
                          I   36.4 I   29.0 I
                         -I--------I--------I
                       7. I     22 I     42 I      64
   BANKING INSURANC       I   34.4 I   65.6 I    11.4
                          I    8.8 I   13.5 I
                         -I--------I--------I
                       8. I     45 I     91 I     136
   SERVICES               I   33.1 I   66.9 I    24.3
                          I   18.0 I   29.4 I
                         -I--------I--------I
                       9. I      7 I      3 I      10
   GOVERNMENT             I   70.0 I   30.0 I     1.8
                          I    2.8 I    1.0 I
                         -I--------I--------I
                  COLUMN        250      310      560
                   TOTAL       44.6     55.4    100.0

NUMBER OF MISSING OBSERVATIONS =      107
```

Detailed Occupation by Industry Projections

The most detailed data from the Southwestern Illinois Vocational Education Consortium's employer survey is reported in Volume Two of this report. Section Two of that volume includes summaries of the present and projected employment for each of the 346 job titles listed in the survey, first for all industries and later for each industry. These also are the most tenuous of the results of this survey, for they are most subject to misinterpretation. They represent only what the employers within each industry reported by occupation, based on their expectations and assumptions about future economic development of southwestern Illinois. The projective potential of these findings and the extent to which each industry is represented by the firms which responded are unknown.

The primary reason for these limitations is time. The Consortium decided to sponsor and conduct the survey in the late fall of 1975; forms were developed and procedures piloted in early 1976, with the Southwestern Illinois Employer Survey mailed to 2,000 firms in March. Coding, keypunching, data processing, analysis and interpretation were confined to what could be accomplished in May and June; no time for more sophisticated analysis and exploration of the projective potential of these results has been available in the few months the data have been ready for examination. Such further analysis is among the goals of Northwestern's project staff during the coming year.

The final source of information from this survey also is reported in Volume Two, Section Two. Employers were asked to identify training and skill improvement programs they believe would help present employees perform their jobs better. These data are reported within and across industries and again offer insight about the general value employers assign to particular skills when screening applicants for new jobs. If, for example, an employer reports that bookkeeping skills are a help to present employees (51 percent do), applicants with training in bookkeeping are likely to have an edge. Closer examination of the demand for bookkeepers and employees with such training reveals that employers in banking, insurance and real estate are most likely to value this skill (75 percent do), followed by construction (67 percent), transportation, communication and utilities (61 percent), and wholesale-retail trade (50 percent).

Implications of the Employer Survey

Several conclusions appear warranted -- even at this early date -- from the experiences in gathering and evaluating the results of the Southwestern Illinois Employer Survey. The survey results already respond to some of these issues; others may be revealed in further analysis after completion of this report, and a third group is likely to emerge over time as vocational educators in the Consortium explore additional uses and implcations of the information contained in the responses from firms in the region.

The first conclusion -- and perhaps our most important finding -- is the obvious need for communication provided by the expansion and operation of the Vocational Education Consortium. Participation in the council should be expanded to include employers who can help educators recognize the limitations, interpretations and uses of data such as this. In addition, governmental decision-makers and regional planners in the Consortium area should be added to its membership to help vocational educators keep abreast of economic changes and employment patterns in the region. Only with such communication in a face-to-face, informal climate can vocational educators begin to recognize and exercise their role as facilitators of economic development in the region.

The need for communication with employers and policy-makers in southwestern Illinois is reflected in the types of information potentially leading to refinements of vocational education programs and counseling in the schools of the region. Schools need to be aware of and plan in response to the different occupational demand patterns within and across industries in its labor market. Educators should be aware of the entry level training and work experience requirements set by employers as they screen new employees. Finally, they should include awareness of the types of skills employers look for in promoting employees and helping individuals prepare for success on the job. Each of these types of information demands both awareness for planning vocational education programs (what and how to train for local job opportunities), and knowledge of the type of information students should have access to as they consider career and occupational goals in light of employment opportunities and requirements in the region in which they may choose to live and work as adults.

These needs point to a three-stage role for the Southwestern Illinois Vocational Education Consortium. First, the council should serve as a communication link between educators, employers and policy-makers in the region. Second, the council should examine the uses and application of the data included in this and subsequent labor market or employer surveys of the region. This stage should include plans to repeat the survey at two-year intervals to update the information provided here and to assess the accuracy of employers' projections from one survey period to the next. Third, the council should supplement the numbers gathered through such surveys with face-to-face communication which can result from participation of employers and policy-makers added to the Consortium in the first step.

Employers' Challenge to Vocational Education

The final note in presenting results of the Southwestern Illinois Employer Survey emerges from the comments of employers who responded to the opportunity to share problems, information and suggestions with vocational educators in the 15-county region included in the Division's MIS field test during 1975-1976. Many employers used the survey as an opening to suggest improvements in vocational education and general educational programs.

Figure IX-1 presents a particularly careful and insightful response to the survey from a small firm in a rural county. The letter addressed several of the issues included in the comments of other employers in the survey: basic skills of students completing high school, their willingness to work under the conditions and opportunities for employment in the region, and the challenge to schools to help youth prepare more realistically for the transition from school to work in southwestern Illinois.

FIGURE IX-1

Dear Sirs:

This survey really does not cover the type of people employed in our firm. Our part-time employees usually work at whatever needs to be done, as well as our full-time help. Only two women are employed, myself and a part-time girl to help with the bookkeeping during the busy seasons (spring and fall). The men have no titles, all have at least an 8th grade education, and most have a high school education.

The basic need for people coming into our type of business, in general, would be good manners, knowing how to deal with the public, the desire to work, getting along with fellow workers, math, driver's license, nice personality, being able and willing to read and follow instructions, taking orders from office help, general knowledge of trucks, loaders, tractors, sprayers, conveyors, spelling and so on. These are very important, but not necessarily in the above mentioned order.

It seems today in general the average young adult excels in football, basketball, track, band, chorus, physical well-being, F.H.A., F.F.A., auto mechanics, industrial arts, cheerleading, how popular you are with other children, the administrators and teachers, or how many nights a month the child's parents wine and dine the important people for a definite purpose. It seems to me we have lost the whole concept of what is important to better our children, to give them pride, decency and all that such junk of yesterday. Instead we are introducing them into a sick society at a very early age. Really, what has become of reading, writing and arithmetic?

I realize there are some children in school for a definite purpose and they are going to make very good citizens and rulers for our country tomorrow. I also know I am a bit older. However, I have worked in the public around 15½ years, and 7½ years was for our local school district. Maybe what we need are better dedicated teachers, not better educated teachers, and parents who care about their children and school instead of just having a place to get them out of their hair.

What frightens me most is to see the cripples (uneducated children) we are turning out of school to make their way in the world. If someone were actually missing limbs, we would go out of our way to try to teach and help, so just how do we feel about their brain? I realize we can't see a crippled brain, but I truly believe we as older adults should consider this aspect with great concern. Should we have waited this long?

Other employers responded more briefly with comments covering a wide range of issues challenging educators in their preparation of youth for employment and transitions into adulthood. While no quantitative analysis of employer comments was attempted, qualitative information from their remarks is presented here to reflect the range and content of many of those who responded.

The first and most crucial comments challenged schools to prepare young people with basic skills -- reading, writing and computation -- more effectively. Two representative comments from employers are below.

> It is obvious that our schools are not doing the job in basic reading, spelling, math or the use of proper English. The so-called new math, new reading methods and writing courses are in my view a failure. It is ridiculous that colleges must give courses in remedial reading. The student is not prepared for higher learning and is involved in high school courses that have no meaning in preparing a student for the job market. Standards are being lowered in all school levels.
>
> It is extremely discouraging to find high school and college graduates who don't know how to spell or punctuate, even on job applications. Many of these young people do not have resumes or fact sheets about prior work experience, education or references either. They do not know how to apply for a job.

The second major topic of concern among employers related to the work attitudes and expectations of high school graduates as they arrive for interviews and work on the job. Many employers challenged schools to provide students with more understanding about the behavior, discipline, dependability and pride in their work required to become valued employees in the labor market. Employers often commented that graduates seemed unwilling to exceed minimum requirements for a job, or had difficulty getting along with peers and supervisors.

Many employers were specific in their comments about work habits and attitudes which interfere with young workers' success on the the job after graduation.

> Today's high school graduates do not accept job responsibility well. Their attitude seems to be that they are doing you a favor, rather than valuing or taking care of their jobs, even after they are warned. They want favors immediately.
>
> There seems to be a general feeling of "How much will you pay me?" rather than "How much am I worth to you?" The young people in our area seem reluctant to accept responsibility. We also find it difficult to find people who are willing to work away from home to gain knowledge and training to step up to better jobs locally, even though they are paid a premium to work in these areas.
>
> We feel the main improvements should be respect, responsibility and organization of work habits. Some of the high school graduates we hire have no organizational habits whatsoever, and no concept of same. Teach a student to challenge himself and to reason, and he is capable of any number of jobs. Only then is he adaptable.

Other employers in the survey emphasized the need to relate education to the employment opportunities of the region. They were especially concerned that educators listen to employers as they plan programs and advise students.

> I suggest high schools spend more money on vocational guidance and job placement, starting in late sophomore or early junior year. Maintain an up-to-date library at school of specific jobs within a 75 mile area with information on each, starting wages, how it compares with local wages and opportunities in trades, professional jobs, etc.
>
> Place more emphasis on job training programs to give not only experience, but also to enable students to see if they wish to pursue a career in a given field.
>
> Efforts should be made in all areas to take the sphere of emphasis outside the classroom. Specific applications of basic skills in job-related problems or projects could encourage better skill and application of learning in school and on the job.

> Unless the high school graduate goes on to college, he is completely unequipped to enter the job market in the area of physical sciences. This is the area of best pay, job security and personal challenge in our industry. Unfortunately, educators are not even aware of this field, much less equipped to advise or train in it.

A few employers commented even more specifically about skills required for particular jobs. One found graduates of business education courses lacking "practical knowledge of on-the-job work. For example, a girl can type, but doesn't know how to change a ribbon or put paper in an adding machine." Others urged that diesel mechanics and hydraulics be included in training courses directed at students interested in farming, mining and agriculture to prepare them more effectively for work with equipment common to those industries today.

Summary of the Employer Survey

Perhaps the most crucial comment from any of the respondents in this employer survey questioned whether educators in southwestern Illinois would use its results to examine, plan and improve vocational and counseling programs in their schools. His concluding remark was simply "There are too many surveys collecting dust on bureaucrats' shelves." This summary challenges educators in southwestern Illinois to respond to his comment by exploring the potential of these findings in helping improve their programs.

The first finding of this survey is that employers are interested in helping schools improve programs. The results of the pilot survey in suburban Cook County, the 15-county southwestern Illinois survey, and the eight-county southwestern Indiana survey -- all conducted in a four-month period between January and April of 1976 -- clearly indicate that employers will respond to the request for information to help improve employment training and counseling programs.

The second finding of this survey is that employers are willing to project job openings two years ahead. We will not know how accurately they do so until and if the Consortium repeats in the survey in 1978 to compare the expectations of employers today with what actually occurs. However, the Consortium demonstrated that locally gathered information from employers about employment and projected placement opportunities can be gathered with minimal time and money. The implications of such information for vocational education planning and for employment and training programs such as CETA should be explored further as the methodology piloted in this study is refined.

Perhaps one of the most important findings of this survey is the information describing how employers use education and work experience in screening applicants for jobs. Employers do not appear willing -- as many people may have assumed -- to substitute long work experience for education. The results of the Illinois and Indiana surveys both confirm this finding. Employers in the southwestern Illinois survey indicated that only 18 percent of the job titles or categories in their firms require three or more years of work experience. More than half the jobs are open to applicants with less than one year of work experience, and nearly 30 percent are open to those with from one to three years of work experience. In addition, only 15 percent of the jobs are open to applicants without a high school diploma.

Employers are clearly willing to provide information, and more than half the employers who responded in the Illinois survey are willing to invest time in meeting with educators to improve programs in the schools of southwestern Illinois. We also found that employers are willing to indicate the types of skill training they consider of value to their present employees -- information which may suggest further ways for schools and community colleges to be of help as an economic resource for the region. Some community colleges in Illinois already provide on-the-job courses to improve the skills of workers in particular technologies and industries; expansion of such a practice can provide mutual rewards for educators and employers. Teaching present employees and trying to relate vocational training to job-specific tasks will benefit workers and employers, but it also promises to help improve instruction and counseling for high school students as teachers and counselors gain insight and expertise regarding the working conditions and environment of jobs which use the skills they develop.

Finally, we must emphasize the importance of using the employer survey as a first step in opening communication channels between school and work. The survey provides information which suggests where opportunities are most likely to be present in the region, and thus the types of employers with which communication is likely to provide the greatest dividends on the investment of educators' and employers' time. The survey presents broad criteria for assessing the occupational and industrial mix of employment opportunities in the region, and the relationships between education and work experience as employers screen applicants for these jobs. But none of these products of the employer survey is an end in itself. Each requires insight and understanding from employers and educators in collaborative interpretation of the implications of such information for the improvement of programs in schools. Any attempt by educators to interpret such data without the assistance and participation of employers is likely to enlarge the gap between them. The employer survey has alerted employers to the potential for collaborative interpretation and planning of programs for the mutual benefit of everyone in the region. Their continued interest will depend on the response they see from educators in southwestern Illinois now that the data do exist; only as equal partners and participants in the Consortium can the full potential of this budding relationship be realized.

Part IV

Building a New Model for Vocational Education Planning

Northwestern University's Vocational Education Planning Project has completed two years of work with educators in Southwestern Illinois with several clear results. The project, in concert with the Division's MIS field study, provided support and encouragement during the formation of the Southwestern Illinois Vocational Education Consortium. The Project, with the sponsorship and effort of the Consortium, assisted in the conduct of a major survey of employers in the region. Now, as we conclude two years of activity, there is a need to examine what we have observed and learned in southwestern Illinois in terms of its potential meaning for vocational education planning in the balance of the state. This assessment in light of the experiences of the Consortium in southwestern Illinois comprises Chapter Ten of this report.

The final step in concluding our work is presented in the summary and recommendations for implementation of the regional vocational education council as a planning tool in Illinois. That is the goal of Chapter Eleven.

CHAPTER TEN

A REGIONAL MODEL FOR VOCATIONAL EDUCATION PLANNING

The production of a regional council for vocational education planning is a profound, educative and social process. The idea of relating to a larger community is largely foreign to many of the people who would be involved in creation and participation in such a council. No rigidly mandated set of rules is sufficient to create such a council or make it work effectively in improving vocational education programs and labor market operations in a region. Each region tends to differ from its neighbors, school people tend to differ from one another within each region, goals and purposes of various agencies often conflict, and school administrators and vocational educators are inexperienced with regional planning. Many vocational educators feel they lack the time to plan with a broader view of regional development in mind; they seldom take time to look beyond their district boundaries to examine how their programs might contribute to the total welfare of the community. The planning they are most familiar with is associated with filling out forms counting seats, enrollment and courses. Creation of a regional council for vocational education planning, therefore, requires introducing people to new ideas, helping them through new experiences, and serving in a catalytic role as they become familiar with these concepts and form new relationships with people in the region.

People always find it difficult to change long established customs and behavior. Vocational educators have been planning in order to satisfy local school boards and to meet the compliance procedures of the Division of Adult, Vocational and Technical Education (DAVTE) for many years. There are strong incentives to conform to the reporting and compliance requirements of the Division, and a general lack of incentives to work together as a region in the early stages of organizing a council. School administrators and vocational educators are not ready to adopt a new set of standards for planning overnight, even with the support and encouragement of the Division. Without support and encouragement from the state education agency, they are unlikely to adopt a regional planning model at all in many parts of Illinois.

The Northwestern University Vocational Education Planning Project has spent the past two years working with a new model of planning that starts at the regional level and works up to the state level. Once a careful definition exists regarding the role of the regional council and what should occur at the regional level, then the role of DAVTE is relatively easy to define. The tendency is for people in state government to assume that planning must occur from the top down. We have explored an alternative -- planning from the bottom up through the organization and operation of a regional council for vocational education in 15 southwestern Illinois counties.

Regional planning requires several decisions. First, what is a region? Second, what are we going to plan about? Third, why do we plan? The first step is to establish the building blocks of organization at the regional level so that vocational educators can see where they fit into the entire system more clearly. In putting these building blocks together, we insert a framework that examines the region in two basic dimensions: first, as an economic unit, and second, as a subsidiary concept of a labor market.

The concept of the labor market applied in this study is the three-element model introduced to vocational educators early in this project: (1) the supply of labor; (2) the demand for workers; and (3) the intermediaries required to help individuals in the supply of labor succeed in jobs in the region's labor market. Vocational education, which is part of the larger education system, is an intermediary which can facilitate matching individuals and jobs. It is an information source which shapes attitudes of people about work and about opportunities in the labor market. It is an adaptation system; vocational education changes the skills of individuals and modifies their behavior in the labor market through preparation for employment in disciplined work situations. Employers value the work habits students learn in vocational education training. Employers also express concern that young people often lack the basic skills (reading, writing and computation) required for work. In the words of one vocational educator in the Southwestern Illinois Consortium, "industry cannot provide this training. Schools can, and we all know that we'd better."

A labor market ultimately has the job of coping with four basic conditions that affect the economy of a region: growth, stability, decline and change. The most common role vocational education assumes in the labor market is as an intermediary in static terms. Vocational education is perceived by many as present mainly to serve the labor force needs of employers in a "don't call me, I'll call you" situation. Educators assume that employers want people trained in drafting or in woodworking, or the individual asks for a course in auto mechanics. This represents a static condition in which vocational education planning accepts conditions as they are -- the industrial composition of the region, the economic conditions, the characteristics of the labor force -- and attempts to do what is asked. A more dynamic role for vocational education is to participate in the labor market as a catalyst for altering conditions, both in the supply of labor and in the demand for it.

This more dynamic role for vocational education planning is the goal of the Northwestern project. Such an approach actively involves vocational education in the economic development of the region; vocational education becomes a resource to improve the economy and to help attract industry to the region. This framework is preliminary to the question of how to put a regional council together. Our perspective summarized is that the basic unit we are talking about is a region, and that the region has two basic elements: an economic aspect, and the subsidiary aspect of the labor market. We view vocational education as a dynamic resource in the labor market, not only responding to requests for service, but also being actively involved in economic development of the region through planning in response to future employment needs and opportunities. Program improvement and economic development are perceived here as mutually supportive goals for vocational educators.

Planning Regional Economic Development

Before reviewing what we learned from two years' work with southwestern Illinois vocational educators in the East St. Louis/Metro East area, we need to summarize our framework for planning vocational education from a regional perspective. Our view of planning through regional occupational education councils has three stages: planning to organize, planning for information, and planning with the new information obtained in the second stage of the process. The first stage requires conceptualization of a region, how the vocational education council in the region is organized, and what the council is asked to do. This process is described more fully later in this summary in discussions of the state and local roles in the formation and use of regional planning councils. The second stage, planning for information, will receive primary emphasis here. The third stage, planning with new information, will require further work with the process as new information becomes available and its usefulness for planning matures.

Planning for information begins with two questions. First, what is needed? Second, what is already available from other agencies? Several dimensions of information for planning are important in considering these two questions.

The first dimension to examine is dependent on communication with other agencies in state and local government which may already gather information about the region's economic development and labor market. The Illinois Department of Business and Economic Development, the Governor's Office of Manpower and Human Development, the Illinois Bureau of the Budget and the Illinois State Employment Service are four of the agencies already involved in gathering some of the information needed for regional vocational education planning. Local and regional planning organizations, such as the Southwestern Illinois Metropolitan and Regional Planning Commission, also may help provide information and support. Southwestern Illinois Planning, for example, played a major role in helping to identify and classify nearly 2,000 employers asked to respond in a survey of labor market conditions in the 15-county vocational education planning council operated during the second year of this study. Much information already exists from sources such as these to identify the various kinds of programs in the region, to measure results, to match people and jobs, and to provide support to the economic development of the region through data necessary to operate an efficient labor market.

An important factor in examining existing information and gathering data to supplement what already exists is the time period for which people are able to project the future. This concern is a key reason why we asked employers in the Southwestern Illinois Vocational Education Consortium's survey to project demand for workers by occupation for a two-year period. Many efforts to collect information from employers and intermediaries in the labor market are unrealistic in their assumption that the respondents will be able to sort out knowledge five years ahead, reflect on it, and have anything useful for planners to analyze as a result. Many survey developers have no appreciation for the fact that employers frequently cannot tell the difference between a replacement and a new hire. Employers in many industries simply do not distinguish between new employees who fill newly created jobs and new employees who fill positions open because of retirement, resignations or turnover in their internal work force.

The second dimension in planning for information is on the supply side of the labor market model. Here the survey has to be of a broader nature in looking at the demand for education among people of all ages over time. What is the demand for vocational education for people changing occupations or preparing to enter or leave the labor market? This has the value of giving vocational education planners a picture of the total labor supply, rather than a narrow segment of future labor supply which might be entering vocational education programs between 12 and 20 years of age.

The third dimension concerns intermediaries and methods through which they are linked to supply and demand in the region's labor market. One of the most important benefits of identifying other agencies and programs working to improve labor market operations in the region is that their staff may be among the best informed people in the area in terms of describing services and programs needed but not available. Information from and about intermediaries in the region should help vocational educators discover the gaps in services as they actively work to improve efficiency in the delivery of services to individuals in the labor market.

The fourth dimension synthesizes the information of the first three in an effort to help schools plan and work out their budgets. Information must be examined in terms of its value to school personnel as they plan educational programs responsive to the needs and future economic development of the region.

All four dimensions are necessary for planning to contribute to economic development within the region. Where and in what occupations is the demand for workers? What is the supply of labor? Who are the intermediaries attempting to link individuals and employers in the region? Finally, how can vocational education planning contribute to economic development and the efficient operation of the labor market?

Testing the Model: What We Learned in Southwestern Illinois

Two years of funding and an indeterminate amount of volunteer time and effort have been invested in the organization and activities of the Southwestern Illinois Vocational Education Consortium. A review of what we observed during those two years seems appropriate before considering recommendations for extension of the model to other regions of the state. We must emphasize first, however, that these observations are not intended as criticism of the people or agencies involved in this study. They reflect much more the fact that vocational educators are unfamiliar with the framework upon which our study is based, and need time and encouragement to consider its possible benefits. Finally, it must be noted that all of the progress in these 15 Illinois counties occurred with limited formal encouragement or support from the Division to adopt the planning framework in this study. Schools involved in the Division's Management Information System field test were required to keep two complete sets of records -- one for the traditional planning and information system for the state, and another for the MIS while the Division worked to improve and refine that system. The activities of the regional council in this study, therefore, represented a very demanding test of the model, for it came with limited official support from the Division, and much additional work unrelated to the specific concepts and tasks associated with implementation of regional vocational education planning based on economic development and labor market operations. Despite competing demands for educators' time, we believe much progress was made in testing the model and its potential.

Much of what we learned involved recognition of the complex, educative and social process through which organization of a regional council for improving vocational education programs must occur. During our first year in southwestern Illinois, we found vocational educators willing to explore new concepts as a means to improve programs. They knew little about employers or the nature of work in their region. They were largely unaware of economic factors that might profoundly affect the character of their schools. They had no experience planning together. Each school district plans separately, based primarily on the kind of planning that commonly occurs in schools in response to higher authority. Schools plan with information designed to justify budgets, fill out forms and meet requirements for recognition and funding. Vocational educators and school administrators do not see their programs as an economic resource; they still think primarily of planning in terms of program approval. Only now, after two years of work with the concepts of this study, are vocational educators in the Southwestern Illinois Consortium broadening membership in the council to include employers.

Another limitation in vocational education planning is that educational planners show little understanding of what happens to people when they leave school and enter the labor market. How does it happen that a school is teaching a program for airplane mechanics when there do not seem to be many jobs for them in the region after training? Schools must help individuals recognize, for example, that jobs using skills taught in vocational education courses may require them to work in other regions of the state and nation. But schools must recognize this factor before they can share such information with students. They must take steps to develop knowledge of the job opportunities in their region. Many students appear to want information and training which improves their chances of finding employment in the region within which they expect to live and work as adults.

There is little awareness in schools of what happens to people in the long run. In the absence of any education along these lines, very few people knew about labor markets and employment ourside their school districts. To them, labor markets consisted essentially of what they could see in their own areas. They could not initially conceive the nature of wider labor markets outside their own communities and school districts. The consequence is that some people tend to begin with very narrow horizons in thinking about where students might go to find jobs when they complete schooling. Local curriculum is planned with very limited knowledge of employment opportunities in the larger labor market of the region. Curriculum planning is often based on the equipment, facilities and staff available, with no awareness of the jobs and training in demand. If the only vocational education classroom and teacher are equipped to teach woodshop, students are taught woodworking.

We learned that not only did educators know very little about work, but very few knew people in industry. Through this project, many of them gained experience and insight into jobs and employer needs of the region. The employer survey provided vocational educators with specific information about each of the employers who responded in the survey, in addition to data describing present and projected employment opportunities, training and work experience requirements for jobs in the region, and limited information about the demand for vocational and skill training to help their present employees on the job. One of the most successful products of the first year's work in this project was the employer directory for Clinton, Madison, Monroe and St. Clair counties. Volume Two of this report significantly expands this to include information about nearly 700 employers who responded in the spring 1976 survey of the 15-county Southwestern Illinois Consortium.

We also found, however, that individual schools, administrators and vocational educators make substantial efforts to help students prepare for and find jobs. Some are able to plan and introduce specific vocational education programs in response to changing labor market conditions and opportunities they identify from the limited information available in the region already. But there is no organized effort in most schools to learn what happens to graduates three to five years after they begin work. The mandated followup process has little impact on planning in most schools. Whatever meaningful long-term information about graduates does exist is gathered through informal, unplanned, personal contacts between teachers and counselors and people in the community, rather than from an understanding or concern for what happens to students after they leave school.

No one saw vocational education as an economic resource for the region. They viewed their role as providing a child with skills so that he could "make his way in the world." But it is a profound jump from focusing on one child at a time to seeing your system as an economic and social resource for the improvement of opportunities to live and work in a region. We view the role of vocational education in terms of this more dynamic, active role in improving work and the economy of the region.

We also learned that there is a need to pool resources more often, especially in the least urban portions of the state. Area Vocational Centers offer one step in that direction, but more schools need to share expensive equipment and facilities to broaden the range of occupational programs available to individual students throughout the region and the state. Marissa and Hillsboro high schools, for example, have agreed to specialize in particular vocational education programs requiring expensive equipment and facilities, with students from each district sharing the benefits of those facilities in much the same way that community college programs permit students to attend the nearest college with a particular type of training if it is not available in the student's home district. This assumes, however, that curriculum planning can be responsive to the goals of individual students as they explore vocational and academic opportunities in school. We found that secondary schools often have few incentives to consider students' occupational goals or interests in planning or improving programs.

We also learned how to help vocational educators to expand their horizons. The most profound experience of the Consortium may have been the design and conduct of the employer survey. Vocational educators in the region broadened their knowledge of labor markets in general and the labor market of southwestern Illinois in particular. They gained additional information to support the relationship between vocational education and the labor market, and they learned that they can produce information which substantially increases their knowledge of the employment opportunities for which their graduates may eventually qualify and compete.

We also learned from our work that there is a need for a broader study of the total supply of people and the total demand for occupational education and training in the larger labor market of the region. Employers expanded the existing information in the region considerably with their responses in the survey, but that is only the beginning. Schools also need a picture of the true demand and resources for training in the region to improve planning and programs in response to the needs and economic future of southwestern Illinois.

What To Do Next: Broadening Participation in the Council

The ultimate value of the information gathered in the southwestern Illinois employer survey will not be known until not only vocational educators but also employers and administrators join in interpreting and using its results. Each of these groups must join in a collaborative process of learning to work with the information, supplement it, and determine the validity of employers' projections of demand for future workers in the region. The Southwestern Illinois Consortium should begin planning now to update the survey in two years to examine with employers the limitations and implications of this year's survey. One major advantage of the survey methodology piloted in this project is that it is inexpensive enough to be repeated at local school district or regional levels. Another advantage is that this information is of a kind vocational educators have never had before. The major challenge to the Consortium in the coming year should be to address the uses and limitations of such information, and to develop the communication channels required to supplement quantitative data with qualitative insight and information through more informal, frequent contact with employers.

This need for broader participation in the regional council appears to be recognized in the Southwestern Illinois Vocational Education Consortium. We are pleased to see the Consortium's board of directors working to include employers in the coming year as this report goes to press. But employers are not the only group which needs to be brought into the Consortium. Parents, students, labor organizations and other intermediaries in the region also need to be included in the activities of the council. We failed to realize how slowly this process would progress in southwestern Illinois. We were unable to bring educators far enough in the first year for them to recognize the need for broader participation in the council and in the planning process. They did not see the relationship between the supply of jobs controlled by employers and the total supply of workers in the labor market, of which their own students are only a small part. There is a need for joint industry programs for teachers, students and business people to expand the horizons of individuals in the vocational education system. There was inadequate linkage in the region between vocational education and other intermediaries in the labor market of the area, including the state employment service. We found an uneven relationship between vocational educators and employment service centers in the region.

We should note, however, that the absence of intermediaries from agencies such as employment service centers in the region is not solely the responsibility of vocational educators. Employment service centers in some parts of the region are extremely cooperative in helping schools prepare students for work, interviews and applications as they approach graduation. Each relationship of that type, however, appears dependent on a few individuals, rather than on a systematic effort to supplement the information and skills provided in vocational education classrooms with knowledge about how the labor market of the region works. Some parts of the region have no relationship with employment service centers at all, or have been told by employment service staff to stay away from employers and job placement activities for their students entirely. This is a problem which cannot be resolved at the local level alone. The Division needs to recognize these problems in helping create the incentives which enable schools to work cooperatively with employers in the region, supplemented by employment service center staff where that agency of state government is willing.

Another of the goals of the Southwestern Illinois Consortium in the coming year should be to explore in detail the meaning and usefulness of its employer survey data at several levels of application. The first level of application of such data -- planning for allocation of limited resources in vocational education -- has been emphasized in this study and report. But further refinement of the survey procedures and methods of using and teaching from the data should contribute at least three additional levels of application. First, such data should be helpful in planning program operations after resources have been allocated to specific occupational training areas expected to be in demand in the region. Second, such information should be helpful to vocational counselors and in job placement as counselors and students recognize the types of jobs available in the region. Once equipped with information about employment opportunities in the region, many students and adults in the area may move to the fourth level of application as they examine the working conditions, training requirements and opportunity structure of the area. This fourth level may well be the ultimate outcome desired by individuals as they consider occupational goals for themselves. Only with considerably more work with such data than has been possible in this project, however, will this information be ready for use in helping individuals in the labor supply of a region set personal vocational and career goals with a full understanding of the labor market in which they live.

Finally, we cannot overemphasize the importance to the Southwestern Illinois Consortium or the Division of expanding the participation in the council at least to include employers during the coming year. Other groups may be added in the future, but interpretation and application of the employer survey data should not proceed without the participation of employers who can help educators understand the limits of such data.

The fact that more than 300 employers who responded in the Consortium's survey indicated their willingness to help educators improve vocational and occupational training in the region suggests that this may be a much larger resource than many vocational educators might realize. The survey offers a skeletal framework from which to begin understanding the opportunity structure and the demand for jobs in the region, but the only way to put meat on the bones of that skeleton is to broaden participation in the council to include employers who can add qualitative information and insight to the quantitative measures reported in the survey.

We must caution, however, that vocational educators should be careful not to regard employers in the regional council in the same way many view local employers in local vocational-technical advisory committees. Samuel Burt's excellent insight into employer incentives for assisting schools improve occupational training (see Appendix D) is clearly reflected in the comments of employers in the Consortium survey. Educators often fail to listen to the comments and suggestions of such groups. As one respondent commented after five years on his local advisory committee, "the administrators and school board did not seem to take the suggestions of employers seriously." The need to bring employers into the Southwestern Illinois Vocational Education Consortium is matched by an equally urgent need for educators to listen carefully as employers do join in council activities.

The incentives for involving and listening to employers are greater than just what may occur in southwestern Illinois in the next year, however. The recommendation that the Consortium repeat the employer survey in two years also requires that support for such a new effort must be present by that time. Active participation in helping vocational educators understand, interpret and apply the information in the survey to vocational education planning in the region may also bring some local employers to the point of recognizing its potential value to them. In short, bringing employers into the Consortium and involving them in its activities may lead eventually to financial support for the Consortium in the future.

Before moving on to consider the recommendations of this study for statewide implementation of regional vocational education councils, a brief note about the relationship between local educators and the Illinois Office of Education seems appropriate. People in the schools, especially administrators, are overcome by the pressures of their jobs. They were not at all reluctant to admit that the press of their duties did not permit them to plan programs carefully in terms of the concerns addressed in this study. One source of that pressure is the stream of compliance and reporting requirements which continue to perpetuate the narrow view of planning present in educational institutions in most of Illinois. We found that administrators do not see the Division or the Office of Education as a resource for support or encouragement in their work. This relationship improved considerably toward the end of the first year of this project when the Division assigned staff to work more closely with schools in the MIS field test area in a more supportive role than had been present in the past. This support from the Division was highly welcomed by people in the schools because, until then, many found their relationship with the Division limited to monitoring and preparation of reports to justify what they were doing.

Our conclusion is that the role of the state office and the Division of Adult, Vocational and Technical Education is largely determined by this reality. The state has the role of producing the climate within which careful planning in response to larger economic considerations in regional labor markets is encouraged and rewarded. We have learned that local vocational educators -- even in the face of a double record-keeping system and the press of their daily duties -- are capable of self-organization in a regional council. We have learned that they are willing to cope with new ideas and, with technical and financial support, undertake a major study to advance the level of information and knowledge about the employment opportunities and labor market of their region. Finally, we have learned that their greatest limitation in working with these ideas is the lack of incentives to divide their time in such a way that they want to plan instead of responding to other demands. Sustained effort requires indigenous leadership to hold such an organization together, financing for clerical help to assure communcation within the council, and financial incentives for local school districts so that time spent planning for vocational education in response to employment opportunities and economic development does not cause their regular jobs to suffer while they are away.

CHAPTER ELEVEN

SUMMARY AND RECOMMENDATIONS

The people involved in the Southwestern Illinois Vocational Education Consortium are not yet at the point of fully understanding or using many of the resources and communication channels which can become available to them through employers and state and regional agencies. Much of this process, however, can be aided by the Division and the Illinois Office of Education. Support from the Division and IOE are essential for the concept to extend beyond the efforts of a small group of vocational educators in southwestern Illinois to a more broadly conceived role for vocational education and the MIS.

The first step for the Division relates to the need to conceptualize the regional planning model as an educative and social process designed to help state and local organizations work out their political competitiveness. The process transcends the issue, for example, of which state agency's definition of regional boundaries should be adopted in the organization of a statewide network of councils, as recommended in this report. The state role should be to help identify the geographic and population centers of potential regions, rather than to define the specific boundaries for any regional council. The state's role should be to provide incentives, encouragement and support within IOE staff and policy which will contribute to a climate conducive to collaborative organization and operation of regional vocational education planning councils. But these two dimensions specifically exclude a mandate from Springfield which would define boundaries and specify goals for each region in the state. Such a mandate would undermine the educative and social process through which regional vocational education planning councils are most likely to be organized and mature.

The Division's role, therefore, needs to be developed with a clear understanding of how DAVTE and IOE can facilitate the process of regional development through initial identification of potential regions around the state, encouragement and support for regional councils, improvement of communication channels to help gather the support of other agencies, and dissemination of information and ideas to other parts of the state which might stimulate the creation of a statewide network of councils for regional occupational education planning. State agencies should be careful, however, not to attempt to enforce assignment of every part of the state to a region. As the Illinois Community College Board learned through its attempt to place every part of the state in a specific community college district, some communities may choose to associate with existing regions, some may wish to form their own, and a few may insist on remaining outside such regions altogether. The type of planning this report envisions cannot be achieved merely through the assignment of school districts to territories in the state, or through creation of a new set of rules and forms required of local school districts to meet compliance and reporting standards of the state office. Our experience in the MIS field test areas during the past two years indicates that even the incentive of paying people to attend workshops does not assure their participation.

This proviso, however, only shapes the role of the Division and IOE in the process rather than limiting it. The Division has several very important roles in creating incentives and facilitating organization of regional councils.

Two major objectives traditionally have motivated interest in vocational and occupational education: (1) increasing the economic strength of the region through better use of available talents in the labor supply, and (2) improving the social and economic well-being of individuals who live and work in the region. During the past two years, vocational educators and employers in southwestern Illinois have demonstrated their interest in achieving these mutually supportive goals, but they cannot do so directly without the support and encouragement of DAVTE and IOE.

The State Role

The first decision the Division and IOE must make in response to the recommendations of this report is whether to begin building a statewide network of regional councils for vocational education planning in Illinois. Quite simply, that is our first recommendation, for without a commitment from the Division and the state to encourage and support local educators in such an effort, the press of other demands on their time and energy will preclude their full participation in such an effort. The balance of this report assumes that this initial decision will be to affirm the Division's interest in implementing the planning process begun two years ago when the Northwestern project was funded.

The second step in the process of forming a network of regional councils will require the Division to decide in general terms what the expectations are for a region. What does the Division expect to happen through creation of the climate conducive to formation of such councils? Our recommendations are that it will take the state office, as well as the first few councils, at least a year to work out relationships with other agencies necessary to eliminate bureaucratic and functional overlaps, consider the questions related to the location and criteria for regional councils, and provide common understandings and bases for the collection of data valuable to vocational educators and other agencies with an interest in economic development and labor market operations.

Among the roles of the Division in implementing such a network is to assist with building relationships with other agencies of state government which collect data helpful to councils at the regional level. Data describing business and economic development, employment patterns and problems, manpower planning agencies and CETA prime sponsors will contribute information that simplifies and reduces the cost of helping vocational education planning councils organize and begin viewing their regions as economic units. As these relationships develop, support for these concepts will contribute to the climate for collaborative planning among the subsidiary agencies within regions around the state.

The second year of the process would then begin with the concept of regions and labor markets defined in such a way that local vocational educators, employers and intermediaries would have a reasonable chance of succeeding. We cannot overemphasize, however, our recommendation that the Division avoid defining regions in terms of rigid boundaries and uniform standards of success. The process of regionalization must begin with development of a cadre of leadership drawn from teachers, vocational educators, administrators, parents, employers and intermediaries in each area of the state.

We recognize that immediate creation of a statewide network of regional councils is impractical. We recommend that the state select three areas of the state in the coming year as pilot regions. Criteria for assessing the most promising sections of the state for this phase of implementing a statewide network are considered in the next section of this report.

We can summarize our recommendations to the Division and IOE in terms of nine specific steps in the process of regionalizing vocational education planning and contributing to a climate conducive to making such a system of councils effective.

1. We recommend that the Division regionalize vocational education planning through the creation of a network of local councils.

2. We recommend that the Division assist in the development of preliminary, broadly based definitions of regions based on criteria proposed in the next section of this report.

3. Once broadly defined regions are identified, we recommend that the Division sponsor training and information seminars for vocational educators and administrators in each region. These seminars should introduce people to the concepts of regional economic development and labor markets, and perhaps more important to the process, introduce them to each other. We found that people in the region really didn't know much about each other and their respective roles in contributing to the economy and labor supply of the larger region. At the same time, the concepts involved in making regional planning councils for vocational education work are new to most of these people. Initially they do not see the need for relating to a larger region. The concepts must be introduced early, reinforced often, and

allowed to develop over time. An incubation period appears to be necessary during the early stages of forming a regional council.

4. We recommend that the Division assist each potential region with the process of evolving locally determined criteria for future economic development and labor market planning. The Nominal Group Techniques described in Chapter Six and Appendix A of this report might offer unobtrusive, non-directive ways of providing such support without imposing Division goals on local regional councils.

5. Based on evaluation of progress in potential regions of the state, we recommend that the Division identify three as pilot regional councils and assist those three in developing needed information about economic development and labor market planning at state and local levels.

6. We recommend that the Division serve as a catalyst for encouraging the pilot regional councils to communicate with each other and to share their knowledge and experiences with other regions in the state which do not have councils.

7. We recommend that the Division serve as the communication bridge between regional councils and the federal government on matters related to funding and planning in Illinois.

8. We recommend that the Division assume leadership in securing funding to help support the network of regional councils. Alternative approaches to this task are suggested in the final section of this report.

9. We recommend that the Division formally encourage field staff in each region to support and participate in the activities of regional councils as they develop.

Criteria for Defining Regions

This brings us to the point of suggesting criteria for identification of potential regions for vocational education planning in Illinois. First, however defined, the regions should relate to definitions by other state agencies to produce economy of organization. The second criterion is efficiency in the mobilization of services. If you can get regions of various departments of government that coincide geographically, you can simplify and reduce costs in producing an organization to begin regional planning, eliminate overlaps in production of services, and contribute to the ease and economies of collection and analysis of information for planning. Efficiencies and economy in the use of space, facilities and time also can result. The third criterion is complementarity. If you have to select among a range of regional options defined differently by different agencies, this criterion suggests that you define the vocational education planning region as close as possible to the definitions of other agencies which complement your efforts best.

This issue is not new to Illinois by any means. The Bureau of the Budget reported in February of this year that, after five years of work to develop uniform regions for state agencies, progress had to be described only as an "evolving uniformity in the regional patterns for planning, analysis and service delivery utilized by many of the state agencies."[1] This is a state-level justification for our recommendation that the Division and IOE avoid becoming entangled in a debate over whose boundaries are to be adopted in defining regions for vocational education planning. But the state issue is not the only reason for caution on this point. Ultimately the specific boundaries of each planning region must be defined locally, rather than by the state.

This leads us to suggest a strategy for developing preliminary definitions of centers for regional vocational education planning which combines each of these state-level criteria with important local considerations. In addition to the issues of economy of organization, efficient mobilization of resources, and complementarity, regions should be defined in terms of size, educational resources and a sense of cultural or community identification.

We recommend that the process begin with examination of the common dimensions of a number of models of a region. The process might begin with the economic planning regions identified by the Department of Business and Economic Development, the regional planning organizations already operating in the state, and the manpower planning regions used in the Governor's Office of Manpower and Human Development. Preliminary definitions of from nine to ten vocational education planning regions in the state could then be developed in terms of population centers and commutation patterns. Each of these definitions was examined in the discussion of criteria for defining regions earlier in this report.

The product of these five steps would then be a list of centers around which planning regions might be developed. The recommendation in the first year's report in this project that the 19 manpower planning regions (now there are 20) be adopted resulted in comment from DAVTE staff that too many regions would create confusion and duplication of effort in many parts of the state. However, the supervision and recognition regions used in IOE and the Division appear to be too large to meet criteria of community identification and commutation patterns. We have tried to apply criteria which would result in regions identified with an adequate supply of labor, both in terms of the variety of skills and the depth of supply, and in terms of the diversity of the employment base in each region.

Applications of these criteria lead us to suggest the cultural and geographic centers of six regions in the northern and southern parts of the state, with division of four possible centers of regions in the central portion of the state open to negotiation. The northern Illinois regions might be developed around Rockford, the Quad Cities area, and Chicago, with the southern regions centered in Madison/St. Clair counties, Effingham and Carbondale/Marion. The four potential regional centers in the middle portion of the state might be Peoria, Springfield, Decatur and Champaign-Urbana.

Finally, it must be recognized that individuals and organizations within each region will have interests which determine their behavior. Ultimately the exact boundaries of each region will be negotiated and determined by the participation of individuals from schools, employers and agencies in that part of the state. The existence and availability of educational resources very well might be the determining factor in resolving these questions of geographic definitions and cultural identity as planning of vocational education moves toward this larger perspective of regional economic development.

Operationalizing the Regional Council

After creating incentives for organization of regional councils and identifying the population centers of potential regions around the state, the Division should recognize that operation of an effective council will require three stages, each lasting approximately one year.

During the first year, the goal of the Division should be to facilitate creation of the organizational relationships and resources for operation of a council. One of the lessons learned from the Southwestern Illinois Consortium during the past two years is that organization of the people and support for the council takes time. As the council matures and gains organizational strength in the region, the second year includes development of data bases and information for planning. The Southwestern Illinois Vocational Education Consortium began this stage in the process with its employer survey.

It should be emphasized that information for planning includes more than quantitative data assessing total demand and labor supply characteristics of the region's market. This stage in the process also requires qualitative data available only in face to face communication between educators and employers as the regional council deepens and broadens its base of information, participation and support.

The third stage in the process has not yet been reached in the Southwestern Illinois Consortium, perhaps because of the failure to complete the communication link to employers mentioned above. The Southwestern Illinois Council played a critical leadership and support role in the conduct of its labor market survey in the spring of 1976 as a first step toward involving employers in the process of vocational education planning. Leaders of the Consortium are meeting during the summer to determine ways to broaden membership for its third year of operation. One of the most clearly stated roles of the Consortium for 1976-77 will be exploration of the usefulness of the local labor market information gathered in its employer survey last spring. This process is likely to lead vocational educators in the region to a better understanding of the importance of including employers in their communication network as they attempt to interpret and apply results of such information to planning.

As the council develops, it can assume a more active role in planning vocational education as a resource for economic development. One advantage of the network of regional councils, once in place, is that planning from a broader framework of economic development within each region of Illinois will enable state agencies to plan with better, more complete information at higher levels of government. One of the crucial elements of this approach to planning, however, is recognition that it must begin at the local level first, rather than from the top down to the local school district.

Finally, the council should have the job of improving and maintaining communication channels throughout the community, and of educating the community about the potential for improving vocational education by making it more responsive to the economic development and employment opportunities of each region. As information is maintained and informal communication becomes more frequent, education can become a genuine economic resource for improving labor market operations.

Funding the Network of Regional Councils

This process of developing a network of regional councils should not be dependent on a single alternative or funding source. Direct funding of three proposed pilot regional councils is, of course, an alternative worth careful consideration. But we have not assumed that the Division is the sole source of such support, or that direct grants for the creation of regional councils are the sole means to accomplish the recommendations in this report. Other alternatives exist, two of which we mention here. Other alternative sources of funding and organizational support should develop as the Division considers the recommendations in this report.

One of the details we have avoided speculating about in this year's report is a fixed guess of the cost of establishing regional councils. The cost will depend largely on what is expected of the councils during their first year of operation, and the level of support required to provide sufficient incentives to attract adequate participation. The Southwestern Illinois Consortium was more expensive than other pilot regional councils may be because of the MIS field test which occurred concurrently. Finally, the cost may vary from region to region depending on the existing communication channels and resources already in place which may facilitate operation of a vocational education planning council.

In the absence of direct planning grants to the three regional councils we propose for the first year, one opportunity exists through the statewide assessment study of vocational education goals planned for the 1976-77 fiscal year. Proposals for such a study were invited while this report was in preparation. One approach to the implementation of a statewide network of regional councils might be to include the concept of regional planning in the criteria for evaluating proposals. The Division can promote the development of regional vocational education planning councils by using the statewide assessment to move the network forward.

A second alternative to funding solely through the Division is through any of a number of combinations of resources from other state agencies involved in planning, employment and economic development of the state. The Department of Business and Economic Development, the Governor's Office of Manpower and Human Development, and the Illinois Bureau of Employment Security are just three agencies which may be willing, under appropriate incentives, to help the Division finance creation of pilot regional councils and labor market surveys for vocational education planning.

The recommendations presented here are considerably broader than what we were able to achieve with the Southwestern Illinois Vocational Education Consortium during the past two years. What we are suggesting is that the vocational education system work collaboratively with other agencies of government and, where possible, act as a catalyst to facilitate cooperative planning for regional labor markets and economic development. The state's primary role should be to create a climate for collaborative planning, incentives for local organization of councils, and support to help education more fully reach its potential as an economic resource for communities throughout Illinois.

Notes

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APPENDICES

A. WORKSHOP STRATEGIES AND PROCEDURE

- A-1 Problem Statements from October 1974 Problem Assessment Workshop
- A-2 Vocational Education Survey Results
- A-3 Sample Use of Nominal Group Process

B. PLANNING QUESTIONNAIRE AND RESULTS

- B-1 Modal and Median Dates for School Planning
- B-2 Planning Questionnaire
- B-3 Questionnaire Results

C. EMPLOYER SURVEY FORM AND PROCEDURE

- C-1 Sample Letter to Employers
- C-2 Sample Press Release
- C-3 Survey Form

D. IF YOU WANT ME TO SERVE ON A SCHOOL ADVISORY COMMITTEE

APPENDIX A-1

PROBLEM STATEMENTS FROM OCTOBER 1974 PROBLEM ASSESSMENT WORKSHOP

Information Needs

An articulation of curriculum development programs which includes information from all levels.

Current, up-to-date information.

Step program design information.

Truthful survey of current employment needs.

Better understanding of career awareness programs for the entire district staff (career exploration).

Source of information which summarizes all the information available in the field (ERIC is too expensive).

MIS information.

Guidance/clarification of One-and-Five-Year Plans.

Instruction in how to use census information properly.

Help in predicting trends.

Help in determining core curriculum needs.

Public relations - help discovering ways to get employment, first-hand information.

Up-to-date, accurate information on job demand.

Information on actual job placement. Will the student have a job when he completes the program?

Good data on job demand.

Lack of Coordination

We don't have clear approval methods for programs and funding.

It is difficult to meet the mandates of One-and-Five-Year Plans.

We have too many duplicated forms and reports to fill out for the state.

We need to organize and utilize administrative councils to help coordinate activites in various institutions.

There is a lack of cooperation and coordination activities between schools and business and industry.

Employment opportunities and vocational education programs don't match.

We need to coordinate programs in high schools and junior colleges.

There is no sharing among different institutions in terms of curriculum and programs.

We need on-the-job training cooperation with industry.

We need agreement over state/DVTE funding priorities.

We need student follow-up studies.

Cooperation with state employment services would help us place students.

The purpose of the advisory councils is unclear.

A working relationship with the Capital Development Board would help us with our shortage of facilities problem.

We need communication with other agencies which also have planning responsibilities.

There is insufficient communication between area vocational high schools and community colleges.

There is a definite need for better cooperation between trade unions and apprentice programs.

We need to know how and when to use the DVTE occupational consultants.

We feel a lack of leadership from the state.

There is a student selection problem, a limitation of numbers, from secondary school to area vocational centers.

Structural Problems

We find a lack of leadership in curriculum development.

Other responsibilities keep staff from researching new problems and solutions.

Lack of program flexibility sufficient to keep up with industry and industrial changes.

Scheduling takes too much time.

We have a definite overload of paperwork.

There is a need for expertise behind state plans and priorities.

There are certification problems in retraining programs.

Lack of planning at state level omits some high schools from vocational center districts.

We have a need for an agency which will come up with an equitable solution for facilities and programs.

Time limitation for teachers and advisors.

Need evaluation procedures so to evaluate vocational programs and job placement.

There is frequent inaccessibility of administration information.

We need vocational guidance for 7th and 8th grade students.

Obsolete philosophies resist adaption to change (i.e. agriculture to agribusiness).

Teachers need time to research job opportunities and develop career awareness.

Lack of Resources

There are inadequate building facilities.

There is an insufficient expenditure of DVTE and junior college funds.

We lack enough personnel to get our work done.

We don't have the resources to provide special programs for disadvantaged and handicapped students.

Need more vocationally trained officers.

There are not equipment funds for new programs.

Schools can't keep up with improved equipment in vocational fields.

There is not enough money to provide comprehensive programs in all five areas of vocational education (i.e. business, marketing, agriculture).

Money, personnel, specialized people and rooms are needed for specialized programs. Enrollment is declining, but more specialized personnel is needed.

Inflation cuts into money allocated for existing, new and proposed vocational classes and for buildings and staff.

APPENDIX A-2

VOCATIONAL EDUCATION SURVEY RESULTS

After conducting the problem identification meeting, it was apparent that many of the clients had informal but successful ways of handling some of the major problems identified by the group. Questionnaires were sent to each high school, vocational area center and community college in order to ascertain what some of the local methods were for dealing with these problems.

The following summary shows the results of that questionnaire.

Question One: What are the primary means used by your school in helping vocational students get jobs?

We found that schools used:	Number of Responses
Local State Employment Services	2
Faculty Advisement to Students/Vocational Guidance	3
Personal Endeavor by Vocational Directors and Teachers, Counselors	10
School Placement Services	4
Cooperative Programs which Lead to Jobs	3
Requests from Employers	3
Advisory Committees	1
Full Time Vocational Counselor Responsible for Placement	1
Survey of Employers	1

Some schools used more than one method, explaining why the total is higher than the number of surveys returned.

Question Two: What sources of information do you use in determining job demand for a particular occupation?

We found that schools used:	Number of Responses
Local Employer Surveys	5
Manpower Quarterly (BLS Publication)	1
Illinois State Employment Service Information	3
Advisory Councils	3
Direct Notification from Employers	1
Western Illinois's *Forecasting Manpower Needs*	1
No Formal Means	2
Newspaper Want-Ads	5
Informal Discussion with Employers	4
Follow-up Surveys	1
DVTE	1
Trade Journals	1
Occupational Outlook Handbook	1
Chamber of Commerce	2
Illinois Bureau of Labor Statistics	2

Question Three: How does your school obtain the cooperation of potential employers or cooperative education employers?

We found that schools used:	Number of Responses
Contact with Civic Organizations which Include Business Executives	2
Cooperative Education	2
Informal Personal Contact with Employers	20
Previous Successful Placement	1
Advisory Committee	6
Publicity through Local Papers	1
Contact with Former Students	1

Question Four: What benefits to vocational planning would you like to see come from the DVTE Management Information System?

Schools Responded:	Number of Responses
Coordination of Programs over One or More Regions	1
Consolidation of Reports	1
Better Information; Summary Information	5
Reduction of Paper Work	6
Job Opportunities	1
Needs Analysis, (Manpower and Student Needs)	7
Student Vocational History	1
Not Sure	1
Curriculum Planning	1
No Benefit	1
Simplification of One-and-Five-Year Process	1
Follow-up Studies	1
Help in Deciding What Programs Should be Offered	1
Placement Help	1

Question Five: How does your school decide how many students should enter a particular vocational curriculum?

We found that schools:	Number of Responses
Limit Classes by Faculty	7
Limit Classes by Student Interest	13
Consider the Possibility of Completer Placement	2
Consider Available Staff	2
Set a Student Quota (per program)	2
Have no Restriction	1
Decide by Vocational Testing	1
Decide by Student Choice with Counseling Advice	1

Question Six: Could you please tell us which programs are offered cooperatively with other schools or institutions?

We found that schools:	Number of Responses
Do have Cooperative Programs	23
Do not have Cooperative Programs	22

APPENDIX A-3

SAMPLE USE OF NOMINAL GROUP PROCESS

The following is a description of how a problem solving session might run. Each small group leader should fit the language and timing to fit the purpose. This example is provided only as a flexible model.

Step 1. Silent Idea Generation

Leader: (to a group of 6-10 people) We are meeting today because we have common problems and concerns about planning vocational education programs which respond to future local manpower needs. Perhaps we can help each other just by realizing we do share some common concerns. The first step is to identify our problems. Once we know what the problems are, we will have a better chance of finding some solutions. In order to identify our problems, we will use a rather structured process known as Nominal Group Technique. It consists of four rather distinct stages. First I will ask you to respond to a problem statement or question. You'll have about half an hour to write down you ideas. Second, I'll ask each person for their ideas, one idea per person at a time as we do around the table. Third, we'll take some time to discuss the ideas and finally, we'll vote on the problems that seem to be of greatest importance with respect to our planning or lack of it.

Please consider this problem statement (points to large newsprint with problem statement written out): "What problems do you face in planning vocational education programs that are responsive to the needs of individuals, government and the industry in this area?" (Leader passes out individual worksheets which have the problem statement written on top, but are otherwise blank.)

Participant: What kind of problems do you mean?

Leader: I want to know what your ideas are about the things which prevent us from planning programs which are responsive to regional labor markets. Simply put down in your own words what your ideas are on this subject. Remember, we are concerned here with the problems of planning, not solutions yet.

Leader: Please stay quietly at your place during this time. We have found that moving and talking now, disturbs people who are trying to think.

(Group takes about 25-35 minutes to respond to the problem statement.)

Leader: Please look over your ideas. Take a few moments to distill your statements into short words or phrases.

(Allow about 5 more minutes for rewriting and finishing up.)

Step 2: Round Robin Reporting of Ideas

Leader: Now we are going to give each person the chance to share their ideas. We'll go around the table. Please give just one idea at a time; we'll go around as many times as we need to. If you have nothing to add, just say pass. You may take your turn again whenever you'd like. Participant$_1$ would you give us one of your ideas concerning problems of planning?

Participant$_1$: Reads response.

(Leader records P$_1$'s ideas on newspring in P$_2$'s exact words. Labeling the statement with A. It is important to use alphabetical identification to avoid later confusion with numbers when voting. Leader should make sure that everyone can see.)

Leader: Thank you. Does anyone have an idea which is similar to P_1's idea. We can record it here.

Participant$_5$: I have almost the same thing. I just said it a little differently.

Leader: Please tell us how you said it. We want everyone's ideas. Some people might be more comfortable with your wording.

Participant$_5$: Response about similar issue to P_1.

Participant$_4$: I don't understand what P_5 means.

Leader: During this stage we simply record everyone's ideas. In the next step we will discuss them. P_2 (in order around the table) would you like to share one of your ideas?

Participant$_2$: Response

The round robin reporting of ideas continues until everyone has offered as many ideas as they wish. The leader should encourage "hitchhiking." In other words, if one person's idea reminds someone else of an additional thought it can be added to the list. The leader should make sure that the entire list is always visible by tearing off completed sheets and hanging on wall.

Step 3: Discussion for Clarification

Leader: Now that we have all the ideas in front of us on newsprint, we should make sure we all understand what each of these phrases mean. If you have any questions, simply ask "What is meant by statement (letter name)?

Participant$_6$: I don't quite understand what is meant by statement J.

Participant$_2$: Explains his/her meaning of statement.

Participant$_5$: To me it means . . . .

The group discusses each idea as necessary. The leader facilitates movement from one idea to the next as the time permits.

Step 4:

Leader: I will give each of your 5 cards (see figure 1) which we will use to establish the order of importance of our ideas. Please look over the entire list and select 5 problems which you feel most strongly affect effective planning. Please do not rank the cards yet. Simply put one idea on each of the 5 cards. Identify the ideas by better identification and by writing the idea statement.

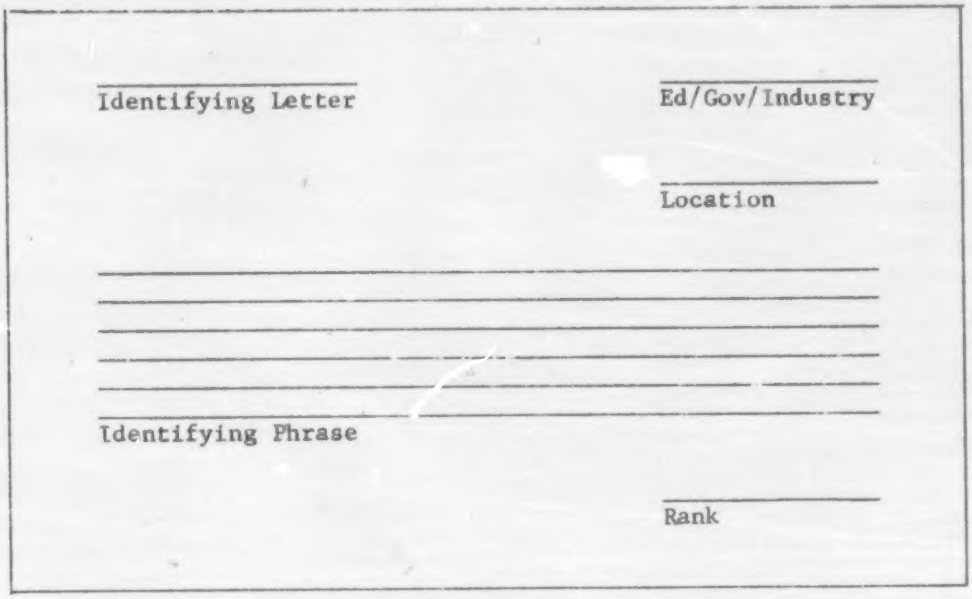
(Give about 5-10 minutes for people to look over the newsprint and make their decisions.)

Leader: Now look at your 5 cards. Decide which problem has the top priority or is of the most importance. Please put a 5 in the lower right hand corner of the card. Now select the problem of next highest priority and put a 4 in the lower right corner. Please continue.

Leader: P_6 would you please collect the cards and read the results to me.

The leader has taken a new piece of newsprint and written the alphabet from A to whatever letter the ideas end with. Now, as P_6 reads the results, the leader records the rank order numbers next to the appropriate identifying letter.

Note: It is possible that consensus will not be reached here and that another vote will need to be taken after more discussion. For various rating forms and instructions, see p. 63-66 in Delbecy et al.



Identifying Letter

Ed/Gov/Industry

Location

Identifying Phrase

Rank

Figure 1

4.0 Operating Hints

There are several operating hints that might make the procedure a little smoother. They are:

1) Be sure to do a quick overview of the whole process when you begin so that the participants will know what to expect.
2) Write legibly in front of the whole group. Be very careful to write ideas down in the exact words that they are presented. In other words, be careful not to interpret what is being said so that you add your own meaning to the Participants ideas. Your participants are valued because of the expertise they can bring to this issue.
3) Use name tags. If the participants are not from relatively equal work roles, do not put titles on the name tags. Let people become familar with each other for their input, not their authority.

4) Use desk name tags so everyone has an opportunity to see the names of the participants without trying to strain across the table to read the small print on name tags.
5) Be sure to give people the opportunity to introduce themselves before you begin if they do not usually work with each other.
6) Set up a few basic ground rules. For instance state "Kindly do not interrupt when someone is talking."

5.0 Advantages/Disadvantages

Advantages of Nominal Group Technique (NGT) are:

1) The technique can be used with groups consisting of people with varying backgrounds, cultures, education or work roles who share a common problem or goal.
2) NGT can be used in groups where participants do not have previous training in group process or communication skills.
3) The highly structured process allows a quick method of bring people together to approach a common task.
4) NGT promotes the generation of many ideas surrounding an issue.
5) NGT allows for maximum and equal participation of all the group members, allowing maximum input from many areas of expertise.
6) The structure of NGT makes it a relatively easy process to run.
7) NGT allows the group to reach consensus in only about two hours.

Disadvantages of NGT are:

1) It is difficult to write an appropriate problem statement that will generate ideas toward an issue.
2) NGT calls for a trained leader or facilitator.
3) The technique can deal with only one question at a time.
4) NGT is inappropriate to use in a group where interacting problem solving a team building skills are to be developed.
5) It takes some effort to prepare for an NGT session including gathering together the needed materials and writing a well thought out problem statement

6) The structure of NGT does not lend itself to a change in topic at a meeting. It is really a single purpose, single topic technique.

6.0 Resources -- Technical Material Needed

Special Equipment needed for NGT include:

1) Newsprint and felt-tipped markers for each group.
2) A copy of the Nominal Group Task Statement Form for each participant.
3) Twenty 3" x 5" cards for each participant.
4) Paper and pencil for each participant.
5) Masking tape.
6) Tables and chairs to accomodate up to eight participants per group.

APPENDIX B-1

MODAL AND MEDIAN START AND FINISH DATES FOR SCHOOL PLANNING

	Mode	Median
Budget	September-August	February-July
Vocational Program Budgets	January-August	February-June
Faculty Employment	March-August	February-July
Class Schedules	March-August	February-June
Course Content	September-August	December-April
Adding New Programs	December-August	January-May
Textbooks and Similar	April-June	February-May
Equipment Purchases	April-August	March-June
Space Allocation	June-August	April-July
Student Assignment to Class	March-August	March-July

APPENDIX B-2

NORTHWESTERN UNIVERSITY

PROJECT IN VOCATIONAL EDUCATION PLANNING

Background Questionnaire for Participant Schools

This brief questionnaire asks for information about your school and its vocational education process that may prove useful in summer and fall workshops. Please complete it as soon as possible and mail it to Northwestern University at the address listed at the end of the questionnaire.

Note that several of the questions ask you to bring information with you to the workshops. Please remember to bring the information requested.

* * *

1. School District No.______________, Town or City_____________,Illinois

2. Projected Enrollment	1976	1977	1978	1980	1985*
Total high school	____	____	____	____	____
Vocational ed only	____	____	____	____	____

*if available

3. Please describe briefly how these projections were made and what kinds of information was used in making them.

____

____

____

4. What percentage of your students would you say take each of the following paths after they leave high school?

(Go to a 4-year college or university.............. ____%
(Go to a community college full time............... ____%
(Go to a technical or trade school or enter an apprenticeship program full time............... ____%
(.....Of these, how many work part time? ____%))
Working full time .... ____%
Military service .... ____%
Full time housewife .... ____%

(continued)

Unemployed .... ____%
Other (list) ______________________ .... ____%
Don't know .... ____%

should add to ....100 %

5. Can you tell us what kinds of information you used in answering the question above about paths that students take following high school. Check as many of the following as are applicable.

A formal follow-up study conducted by our school ( )
Informal conversations with former students ( )
Class reunions or similar functions ( )
Informal reports from younger brothers and sisters ( )
Information reported from counselors ( )
Other ______________________________________ ( )

6. How conficent do you feel about the quality of information you receive about your former students? Please check the statement that comes closest to representing your feelings.

Accurate and complete ( )
The information we get is okay, but there are many students that we can't reach ( )
The information is very sketchy ( )
We don't have much information at all on our former students ( )

7. How would you rate the importance of the following types of individuals in the process of career guidance and placement. In the scale below a "5" is the highest rating and a "1" the lowest. (So, if you thought that counselors were very important in the process of career guidance but not important at all in placement you would rate them as a "5" in guidance and as a "1" in placement.) Answer the questions in light of your experience in your own school, not in reference to conditions elsewhere. Please circle the appropriate numbers to the left and right of each type of individual.

Least	Influence			Most		Least		Influence		Most
1	2	3	4	5	Other Students	1	2	3	4	5
1	2	3	4	5	Parents	1	2	3	4	5
1	2	3	4	5	Teachers	1	2	3	4	5
1	2	3	4	5	Counselors	1	2	3	4	5
1	2	3	4	5	Vocational prog. directors	1	2	3	4	5
1	2	3	4	5	Vo Ed Advisory committee	1	2	3	4	5
1	2	3	4	5	School placement officer	1	2	3	4	5
1	2	3	4	5	Businessmen generally	1	2	3	4	5
1	2	3	4	5	Government managers generally	1	2	3	4	5
1	2	3	4	5	Ministers and clergy	1	2	3	4	5
1	2	3	4	5	Local political leaders	1	2	3	4	5
1	2	3	4	5	Others________ ______________	1	2	3	4	5

8. Has your school vocational education program been evaluated by an outside agency (such as DVTE or North Central) during the last three years?

Yes ( ) No ( )

If, "yes", please list the organization.

____

What major recommendations did that organization make?

____

____

____

Have these recommendations affected the goals or vocational education program plans at your school?

Yes ( ) No ( )

If "yes," please tell how ______________________________

____

____

____

9. Does your school obtain reqular information on wages in your area?

Yes ( ) No ( )

If "yes," please bring a copy of the most current information to the workshop.

10. How does your school obtain measurement of student interest in currently offered or potential vocational programs?

____

If surveys or questionnaires are used, please bring a copy of the instrument and the latest results to the workshop.

Please return to:

Charles T. Kerchner
Vocational Education Planning Project
Northwestern University
School of Education
Evanston, Illinois 60023

APPENDIX B-3

QUESTIONNAIRE RESULTS

```
          EXPAND COUNSELING SERVICES

                                                        RELATIVE
                                            ABSOLUTE      FREQ
CATEGORY LABEL                      CODE      FREQ       (PCT)

NO PROGRAM                            0.        33        58.9

ONE PROGRAM                           1.        15        26.8

MORE THAN ONE                         2.         5         8.9

       MISSING                        9.         3         5.4
                                             ------      ------
                                   TOTAL        56       100.0


MEAN            0.472      STD ERR         0.092
MODE            0.000      STD DEV         0.668
MEDIAN          0.303
VARIANCE        0.446



          EXPAND PLACEMENT SERVICES

                                                        RELATIVE
                                            ABSOLUTE      FREQ
CATEGORY LABEL                      CODE      FREQ       (PCT)

NO PROGRAM                            0.        33        58.9

ONE PROGRAM                           1.        14        25.0

MORE THAN ONE                         2.         5         8.9

                                      9.         4         7.1
       MISSING                               ------      ------
                                   TOTAL        56       100.0


MEAN            0.462      STD ERR         0.093
MODE            0.000      STD DEV         0.670
MEDIAN          0.288
VARIANCE        0.449
```

DECREASE TIME OR NUMBER OF FACULTY

```
                                                   RELATIVE
                                        ABSOLUTE     FREQ
CATEGORY LABEL                  CODE      FREQ      (PCT)

NO PROGRAM                       0.        42        75.0

ONE PROGRAM                      1.         7        12.5

MORE THAN ONE                    2.         3         5.4

MISSING                          9.         4         7.1
                                         ------    ------
                                TOTAL      56       100.0

MEAN            0.250     STD ERR        0.077
MODE            0.000     STD DEV        0.556
MEDIAN          0.119
VARIANCE        0.309
```

DECISION- BUILD OR REMODEL FACILITIES

```
                                                   RELATIVE
                                        ABSOLUTE     FREQ
CATEGORY LABEL                  CODE      FREQ      (PCT)

NO PROGRAM                       0.        36        64.3

ONE PROGRAM                      1.         8        14.3

MORE THAN ONE                    2.        10        17.9

      MISSING                    9.         2         3.6
                                         ------    ------
                                TOTAL      56       100.0

MEAN            0.519     STD ERR        0.108
MODE            0.000     STD DEV        0.795
MEDIAN          0.250
VARIANCE        0.632
```

```
                 DECIDE ON MINOR EQUIPMENT ITEMS

                                                       RELATIVE
                                          ABSOLUTE      FREQ
CATEGORY LABEL                    CODE      FREQ        (PCT)

NO PROGRAM                          0.         4         7.1

ONE PROGRAM                         1.        17        30.4

MORE THAN ONE                       2.        35        62.5
                                           -------     ------
                                 TOTAL        56       100.0

MEAN            1.554       STD ERR         0.084
MODE            2.000       STD DEV         0.630
MEDIAN          1.700
VARIANCE        0.397
```

```
             ADD FACULTY OR INCREASE FACULTY TIME

                                                       RELATIVE
                                          ABSOLUTE      FREQ
CATEGORY LABEL                    CODE      FREQ        (PCT)

NO PROGRAM                          0.        30        53.6

ONE PROGRAM                         1.        12        21.4

MORE THAN ONE                       2.        11        19.6

      MISSING                       9.         3         5.4
                                           -------     ------
                                 TOTAL        56       100.0

MEAN            0.642       STD ERR         0.111
MODE            0.000       STD DEV         0.811
MEDIAN          0.383
VARIANCE        0.657
```

```
                DECIDE ON NEW TEXT ETC


                                                   RELATIVE
                                         ABSOLUTE    FREQ
CATEGORY LABEL                     CODE    FREQ      (PCT)

NO PROGRAM                          0.      18       32.1

ONE PROGRAM                         1.      14       25.0

MORE THAN ONE                       2.      20       35.7

     MISSING                        9.       4        7.1
                                          ------    ------
                                  TOTAL     56      100.0


MEAN            1,038      STD ERR        0.120
MODE            2,000      STD DEV        0,862
MEDIAN          1,071
VARIANCE        0,744
```

```
                DECIDE ON MAJOR EQUIPMENT PURCHASE


                                                   RELATIVE
                                         ABSOLUTE    FREQ
CATEGORY LABEL                     CODE    FREQ      (PCT)

NO PROGRAM                          0.      24       42.9

ONE PROGRAM                         1.      16       28.6

MORE THAN ONE                       2.      14       25.0

       MISSING                      9.       2        3.6
                                          ------    ------
                                  TOTAL     56      100.0


MEAN            0,815      STD.ERR        0.112
MODE            0,000      STD DEV        0,826
MEDIAN          0,688
VARIANCE        0,662
```

```
                 PLAN PROGRAM WITH AVC

                                                         RELATIVE
                                              ABSOLUTE     FREQ
CATEGORY LABEL                        CODE      FREQ       (PCT)

NO PROGRAM                             0.        30        53.6

ONE PROGRAM                            1.        13        23.2

MORE THAN ONE                          2.         9        16.1

    MISSING                            9.         4         7.1
                                               ------     ------
                                      TOTAL      56       100.0

MEAN             0,596       STD ERR          0.107
MODE             0,000       STD DEV          0.774

MEDIAN           0.367
VARIANCE         0.598


                 PLAN POSTSECONDARY ARTICULATION

                                                         RELATIVE
                                              ABSOLUTE     FREQ
CATEGORY LABEL                        CODE      FREQ       (PCT)

NO PROGRAM                             0.        36        64.3

ONE PROGRAM                            1.         7        12.5

MORE THAN ONE                          2.        11        19.6

     MISSING                           9.         2         3.6
                                               ------     ------
                                      TOTAL      56       100.0

MEAN             0,537       STD ERR          0.111
MODE             0,000       STD DEV          0.818

MEDIAN           0.250
VARIANCE         0.668
```

```
                DECISION-CHANGE NON VOCATIONAL TEACHING

                                                      RELATIVE
                                          ABSOLUTE      FREQ
CATEGORY LABEL                   CODE       FREQ       (PCT)

NO PROGRAM                         0.         28        50.0

ONE PROGRAM                        1.         13        23.2

MORE THAN ONE                      2.         10        17.9

      MISSING                      9.          5         8.9
                                          ------      ------
                                 TOTAL        56       100.0

MEAN            0.647      STD ERR        0.111
MODE            0.000      STD DEV        0.796
MEDIAN          0.411
VARIANCE        0.633
```

```
                PLAN COOPERATIVE HS PROGRAMS

                                                      RELATIVE
                                          ABSOLUTE      FREQ
CATEGORY LABEL                   CODE       FREQ       (PCT)

NO PROGRAM                         0.         42        75.0

ONE PROGRAM                        1.          6        10.7

MORE THAN ONE                      2.          4         7.1

      MISSING                      9.          4         7.1
                                          ------      ------
                                 TOTAL        56       100.0

MEAN            0.269      STD ERR        0.083
MODE            0.000      STD DEV        0.598

MEDIAN          0.119
VARIANCE        0.357
```

```
              DECISION- CHANGE PROGRAN CAPACITY

                                                         RELATIVE
                                             ABSOLUTE     FREQ
CATEGORY LABEL                       CODE      FREQ       (PCT)

NO PROGRAM                             0.        22        39.3

ONE PROGRAM                            1.        20        35.7

MORE THAN ONE                          2.        12        21.4

     MISSING                           9.         2         3.6
                                              ------     ------
                                    TOTAL        56       100.0


MEAN            0.815      STD ERR          0.106
MODE            0.000      STD DEV          0.779

MEDIAN          0.750
VARIANCE        0.607
```

```
              DECISION-CHANGE SKILLS TAUGHT

                                                         RELATIVE
                                             ABSOLUTE     FREQ
CATEGORY LABEL                       CODE      FREQ       (PCT)

NO PROGRAM                             0.        25        44.6

ONE PROGRAM                            1.        17        30.4

MORE THAN ONE                          2.        12        21.4

     MISSING                           9.         2         3.6
                                              ------     ------
                                    TOTAL        56       100.0

MEAN            0.759      STD ERR          0.109
MODE            0.000      STD DEV          0.799

MEDIAN          0.618
VARIANCE        0.639
```

```
                  DECISION-START NEW PROGRAM

                                                            RELATIVE
                                               ABSOLUTE       FREQ
CATEGORY LABEL                         CODE      FREQ         (PCT)

NO PROGRAM                               0.        15          26.8

ONE PROGRAM                              1.        19          33.9

MORE THAN ONE                            2.        19          33.9

    MISSING                              9.         3           5.4
                                               ------        ------
                                      TOTAL        56         100.0

      MEAN              1,075        STD ERR          0.111
      MODE              1,000        STD DEV          0.805
      MEDIAN            1,105
      VARIANCE          0,648


                  DECISION-DISCONTINUE PROGRAM

                                                            RELATIVE
                                               ABSOLUTE       FREQ
CATEGORY LABEL                         CODE      FREQ         (PCT)

NO PROGRAM                               0.        41          73.2

ONE PROGRAM                              1.        12          21.4

MORE THAN ONE                            2.         1           1.8

      MISSING                            9.         2           3.6
                                               ------        ------
                                      TOTAL        56         100.0

MEAN              0,259        STD ERR          0.066
MODE              0,000        STD DEV          0.483
MEDIAN            0,159
VARIANCE          0,233
```

SAMPLE LETTER TO EMPLOYERS

(On your school district's letterhead)

March 1, 1976

Dear Employer:

We would appreciate your help in a survey of employers in our area. The enclosed survey form should take 20 to 30 minutes to fill out, and would be of great help to us in improving job counseling and information for our students. The survey also will help us improve existing occupational programs in local schools and colleges, and plan new programs to help youth and adults in Southwestern Illinois be better prepared to meet your employment needs in the future.

The survey is a cooperative effort involving out school district, the 15-county Southwestern Illinois Vocational Education Consortium, and Northwestern University's School of Education. Results from our district will be combined with those of other employers in this region, so all information in your form will remain completely confidential and for school use only, except as noted specifically on page one. Your help will contribute to the accuracy of the information we gather, and increase our ability to help area residents improve their job skills.

Please do not decline to fill this form out because you consider yourself a small organization. More than 75 percent of the employers in our area have fewer than 20 employees. This means that cooperation from many smaller employers is essential for us to get an accurate picture of jobs and skills needed in southwestern Illinois. Your help is extremely important in making our survey a success.

(Name of your district data coordinator) is directing the survey in our district. Please feel free to call (him/her) at (phone number) at your convenience if you have questions about the survey. A post-paid, addressed envelop is enclosed to help speed delivery to Northwestern University, where coding and analysis will be done. With your help, Northwestern and the Consortium expect to report results of this survey to us in the spring.

Thank you.

Sincerely yours,

Superintendent of Schools

APPENDIX C-2

For questions contact:

(Local Data Coordinator)
(Local phone number)
Or

Prof. Ronald Rodgers
Northwestern University
(312) 492-3264

SAMPLE PRESS RELEASE

February 1976

SOUTHWESTERN ILLINOIS EMPLOYER SURVEY

Schools are asking local employers to help them prepare students for jobs in 15 southwestern Illinois counties through a survey of more than 2,000 employers in March.

All employers with more than 10 employees are being asked to respond in the survey to develop a more accurate picture of employment in the 15-county region. Small employers are especially important to the survey because more than 75 percent of employers in the area have fewer than 20 employees, according to the U.S. Census Bureau.

The survey is a cooperative effort of nearly 70 local school districts involved in the Southwestern Illinois Vocational Education Consortium and Northwestern University School of Education through a grant from the Illinois Office of Education's division of Adult, Vocational and Technical Education.

Employers are being asked to describe their present work force and the types of training they expect to need in hiring new employees in the next two years. Information in the survey will be used to improve job counseling and vocational education planning in area schools and community colleges.

(more)

The survey is an extension of a shorter version completed in four of the 15 counties last spring during the first year of the project. Last year a telephone survey produced a partial directory of employers in Madison, St. Clair, Clinton and Monroe counties.

Local employers are requested to fill out the survey form by March 19 to permit time for coding and analysis at Northwestern. The survey offers employers a way to tell a large number of educators about their needs for trained workers now and in the future.

Results will be reported in the spring. All employment information about any single firm will remain confidential. Reports will combine results from all employers for each industry in the region.

The vocational education planning project is directed at helping local schools and communities gather and use information about three elements of the local job market:

- The supply of workers and their skills.
- The demand for skills in particular jobs in the area.
- The roles of schools in helping people prepare for jobs.

The consortium and Northwestern teamed to provide a series of workshops last summer to help local schools include job market information in their planning. Factors in planning job counseling and vocational education include the number and quality of jobs in the area, their social mobility, and wage patterns.

The employer survey will enable schools to use detailed employment information and ideas from local employers to help youth and adults prepare to meet the needs of the southwest Illinois job market. Schools are trying to include the needs of individuals, communities, government and local employers as they plan occupational and counseling programs.

(more)

The 15 counties involved in the survey are: Bond, Calhoun, Clinton, Fayette, Greene, Jersey, Macoupin, Madison, Marion, Monroe, Montgomery, Perry, Randolph, St. Clair and Washington.

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APPENDIX C-3

SOUTHWESTERN ILLINOIS
VOCATIONAL EDUCATION CONSORTIUM &
NORTHWESTERN UNIVERSITY SCHOOL OF EDUCATION

For Questions Call:

CONFIDENTIAL: The information reported in this survey will be used for educational and occupational planning purposes only. The source of information and firm names will not be shared with any other agency or party except as specifically noted in Part I below.

SOUTHWESTERN ILLINOIS EMPLOYER SURVEY

The purpose of this Employer Survey is to gather information and opinions from employers to help schools and colleges improve job counseling, existing educational programs and planning for new occupational training opportunities for youth and adults in Southwestern Illinois. Please fill in the survey as completely and accurately as possible. We would appreciate having the completed survey returned to Northwestern University for coding and analysis by March 19, 1976.

PART I

GENERAL INFORMATION

We plan to publish a directory of employers in Southwestern Illinois. Please indicate the general nature and size of your organization, and the types of jobs for which you hire. Only the information in the box below will be included in the directory.

1. Name of organization or firm ______________________________

2. Mailing address ______________________________

____
City or town Zip Code

3. Nature of operations (for example, carry-out restaurant, retail clothing store, comprehensive hospital, shoe manufacturer)

____

4. Annual average employment	Full-time	Part-time	Month of High/Low
Highest number during year	______	______	______
Lowest number during year	______	______	______

5. Types of jobs most frequently filled ______________________________

____

____

6. Personnel director or other appropriate hiring person:

Name ______________________________ Phone ______________

Title ______________________________

7. Person filling out this form:

Name ______________________________

Title ______________________________

Phone ______________________________
(area code) (number) (extension)

8. Would you like a complimentary summary of the results of this employer survey? Yes_____ No_____

PART II

Following is a list of occupational categories and job titles common to employers in your industry. The list includes all employees; the survey is not limited only to vocational and technical jobs. We are trying to assess job market characteristics for all industries in Southwestern Illinois.

Please begin by reading the list of job titles and checking those that apply to positions in your organization. Then write those titles under the occupational categories as listed on the following pages, and indicate how many people you employ in each category, your estimates of demand for new employees due to turnover or expansion, and the general qualifications you look for when hiring people for each position. Please complete all sections for each category and occupational group.

Because this is a general list, many jobs in the list may not apply to your operation. Other employers who have completed this form have indicated that the most convenient way to fill it out is to find all the job titles you use in your firm or organization first, before writing in any other information. After you identify the job titles and write them into the following pages, the rest of the form should take about 10 to 15 minutes to complete. Since the form is designed for larger employers as well as smaller organizations, some job titles are more specialized than is true of all employees in your operation. When that is the case, please indicate the MOST IMPORTANT skill or job title for the position as you would list it in a classified ad if the position were vacant under present conditions. Please list each employee in one category only.

Additional copies of the employee data pages for Part II are available from your district coordinator as identified on page one of this form if you need them.

	AVERAGE MONTHLY EMPLOYMENT		EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number)		SUPPLY OF QUALIFIED WORKERS (Check One)			MINIMUM QUALIFICATIONS FOR HIRING NEW EMPLOYEES (Check all that apply)															
								EDUCATION									WORK EXPERIENCE.				OTHER		
Type of Job	Number of Full-time Employees in 1975	Number of Part-time Employees in 1975	New Full-time Employees Expected in 1976 & 1977	New Part-time Employees Expected in 1976 & 1977	Surplus	Good	Scarce	Less than 4yrs. HS	Vocational HS Training	HS Graduate	Trade Schl.	Apprentice-ship	2-Year College	1 - 3 years College	College Graduate	Professional Degree	0 - 1 year	1 - 3 years	3-10 years	over 10 yrs	Veterans	Handicapped	Other
PROFESSIONAL & MANAGERIAL																							
CLERICAL & SALES WORKERS																							
CRAFTS & TECHNICIANS																							

Type of Job	AVERAGE MONTHLY EMPLOYMENT		EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number)		SUPPLY OF QUALIFIED WORKERS (Check One)			MINIMUM QUALIFICATIONS FOR HIRING NEW EMPLOYEES (Check all that apply) EDUCATION									WORK EXPERIENCE				OTHER		
	Number of Full-time Employees in 1975	Number of Part-time Employees in 1975	New Full-time Employees Expected in 1976 & 1977	New Part-time Employees Expected in 1976 & 1977	Surplus	Good	Scarce	Less than 4 yrs. HS	Vocational HS Training	HS Graduate	Trade Schl	Apprenticeship	2-year College	1 - 3 years College	College Graduate	Professional Degree	0 - 1 year	1 - 3 years	3 - 10 yrs	over 10 yrs	Veterans	Handicapped	Other
OPERATIVES & TRANSPORT WORKERS																							
SERVICE WORKERS & LABORERS																							
OTHER EMPLOYEES																							

PART III: SKILL IMPROVEMENT

1. Which of the following programs would be helpful to your current employees in improving their work and job skills?

PROFESSIONAL-MANAGERIAL

____Accounting
____Advanced Math
____Advertising
____Agricultural Sciences
____Biological Sciences
____Business Economics
____Chemistry
____Computer Sciences
____Computer Programming
Engineering
  ____Chemical
  ____Electrical
  ____Industrial
  ____Mechanical
  ____Materials
  ____Petroleum
____Finance
____Geological Sciences
____Insurance
____Investments
____Marketing
____Money & Banking
____Physics
____Public Speaking
____Real Estate
____Speed Reading
____Statistics

CLERICAL & SALES

____Basic Math
____Bookkeeping
____Data Processing
____Food Service Sales
____General Merchandise Sales
____Keypunching
____Office Practices
____Speech, Grammar
____Stenography
____Typing

CRAFTS, TECHNICAL

____Air Conditioning
____Carpentry
____Commercial Photography
____Commercial Art, Graphics
____Computer Servicing
____Drafting
____Electricity
____Electronic Equipment service
____Electronics, Industrial
____Floral Design
____Hydraulics, fundamentals
____Hydraulics, Maintenance
____Landscaping
____Machine Shop
____Millwork & Cabinet Making
Mechanics
  ____Auto
  ____Diesel
  ____Farm Equipment
  ____Other (please specify)
____Sheet Metal Working
____Supervisory Training
____Welding
____OTHER (Please Specify)

____

____

HEALTH CARE

____Child care
____Health Occupations
____Nurses Aid Training
____Nursing
____Nutrition

OTHER

____

____

____

____

2. How well do existing educational facilities in the area from which you hire meet the occupational and training needs of your organization?

____Very well ____Fairly well ____Poorly ____Not at all

3. In what areas of training do you find existing educational facilities especially strong or weak in preparing people for the types of jobs in your organization? (Please be specific)

Strong Areas of Training	Weak Areas of Training

4. Do you provide formal training for your employees in any of the following areas? Formal training refers to job-related programs or classes to help employees learn skills required in their regular work or duties in your organization.

Yes	If yes, how often?	Who initiates it? (worker or supervisor?)
___Apprenticeship	____________	____________
___Executive development	____________	____________
___Job upgrading	____________	____________
___Supervisory training	____________	____________
___Technical training	____________	____________
___Other (Please Specify)	____________	____________
____________		
____________		

5. Would you or your organization be interested in participating in discussions to improve occupational education and training in local high schools and post-high school institutions (community and senior level colleges and technical schools)?

____Yes ____No

6. Please list any general comments you or others in your organization may wish to make about the improvements of education and training.

JOB LIST BY OCCUPATIONAL CATEGORY

Type of Job

PROFESSIONAL-MANAGERIAL

- Accountants
- Credit Managers
- Computer specialists
- Dept. & Division heads
- Engineers
  - Chemical
  - Electrical
  - Industrial
  - Mechanical
  - Metallurgical
  - Petroleum
  - Other (specify)
- Financial Managers
- Marketing Managers
- Office Managers
- Purchasing Agents
- Research Workers
- Scientists
  - Agricultural
  - Biologists
  - Chemists
  - Geologists
  - Physicists
  - Other (specify)
- Writers & editorial workers
  - Advertising
  - Editors
  - Photographers
  - Public Relations
  - Reporters
- Other (specify)

Type of Job

CLERICAL & SALES WORKERS

- Bill collectors
- Classified ad takers
- Display ad sales workers
- Mail handlers
- Manufacturer sales reps
- Messengers
- Office machine operators
  - Key punch operators
  - Other (specify)
- Payroll clerks
- Receptionists
- Secretaries
- Shipping & receiving clerks
- Stock clerks
- Telephone operators
- Other (specify)

CRAFTS & TECHNICIANS

- Bakers
- Binders
- Compositors & typesetters
- Electricians
- Foremen
- Furniture & wood finishers
- Machinists
- Mechanics & repairmen
  - Airconditioning, heating & refrigeration
  - Auto & truck mechanics
  - Data processing equipment
  - Farm implements
  - Heavy equipment & machinery
  - Other (specify)
- Metal molders
- Photoengravers & lithographers
- Plumbers & pipefitters
- Pressmen & plate printers
- Rollers & metal finishers
- Sheetmetal workers
- Technicians (specify)
- Tool & die makers
- Other (specify)

Type of Job

SERVICE WORKERS & LABORERS

- Cleaning & Building Maintenance
  - Janitors
  - Janitresses
  - Supervisors
- Food & cafeteria
  - Busboys
  - Cooks
  - Cashiers
  - Counter workers
  - Dishwashers
  - Other (specify)
- Freight & material handlers
- Garbage collectors
- Gardeners & groundskeepers
- Guards & watchmen
- Vehicle washers & equipment cleaners
- Warehousemen
- Other (specify)

OPERATIVES & TRANSPORT

- Assemblers
- Bottlers & canners
- Delivery & routemen
- Dressmakers & seamstresses
- Dyers
- Examiners & inspectors
- Files, polishers, sanders & buffers
- Forklift & tow operators
- Garage workers
- Graders & worters
- Metal platers
- Milliners
- Mixers
- Oilers & greasers
- Packers & wrappers
- Precision machinists
  - Drill presses
  - Grinders
  - Other (specify)
- Solderers
- Truck drivers
- Welders & flamecutters
- Other (specify)

SAMPLE SURVEY FORM

	AVERAGE MONTHLY EMPLOYMENT		EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number)		SUPPLY OF QUALIFIED WORKERS (Check one)			MINIMUM QUALIFICATIONS FOR HIRING NEW EMPLOYEES (Check all that apply)															
								EDUCATION									WORK EXPERIENCE				OTHER		
Type of Job	Number of Full-time Employees in 1975	Number of Part-time Employees in 1975	New Full-time Employees Expected in 1976 & 1977	New Part-time Employees Expected in 1976 & 1977	Surplus	Good	Scarce	[illegible]	[illegible]	HS Graduate	Trade School	[illegible]	[illegible]	[illegible]	[illegible]	Professional Degree	0 - 1 year	1 - 3 years	3-10 years	over 10 years	Veterans	Handicapped	Other
PROFESSIONAL & MANAGERIAL																							
Accountants	2	—	—	—		✓				✓			✓					✓			✓		
Elec Engineers	5	—	1	—		✓										✓		✓			✓		
Mech Engineers	2	—	—	—		✓										✓		✓			✓		
Office Managers	2	—	—	—		✓				✓				✓				✓					
[illegible]	2	—	—	—		✓				✓								✓			✓		
Photographers	3	—	—	—		✓			✓	✓	✓		✓					✓			✓		
Prod. Managers	5	—	1	—		✓				✓			✓						✓		✓		
CLERICAL & SALES WORKERS																							
Clerk Typist	2	2	1	1		✓				✓							✓						
Payroll Clerks	2	—	—	—		✓				✓								✓					
Keypunchers	1	1	—	—		✓				✓							✓						
Secretaries	2	1	—	—		✓				✓								✓					
Shipping Clerks	3	1	—	—		✓				✓								✓			✓		
CRAFTS & TECHNICIANS																							
Machinists	2	—	—	—		✓				✓	✓								✓		✓		
Elec Technicians	5	—	—	—		✓				✓								✓			✓		
Tool & Die Makers	3	—	—	—		✓						✓							✓		✓		
OPERATIVES & TRANSPORT WORKERS																							
Assemblers	25	8	5	5		✓				✓								✓			✓		
Deliverymen	5	—	2	—		✓				✓								✓			✓		
Inspectors	8	—	2	—		✓				✓								✓			✓		
Filers & Polishers	6	—	—	—		✓				✓								✓			✓		
Drill Press Oper.	4	—	—	—		✓				✓		✓						✓			✓		
Grinders	2	—	—	—		✓				✓		✓						✓			✓		
Punch Press Oper.	4	—	—	—		✓				✓		✓						✓			✓		
[illegible] SERVICE WORKERS & LABORERS																							
Janitors	2	2	1	2		✓		✓									✓				✓	✓	
Janitress	2	1	1	1		✓		✓									✓				✓	✓	
Freight handlers	2	—	—	—		✓		✓									✓				✓	✓	
Operatives																							
[illegible]	5	—	—	—		✓				✓								✓			✓		
[illegible]	6	—	—	—		✓				✓								✓			✓		
[illegible]	8	—	2	—		✓				✓								✓			✓		
Welders	6	—	—	—		✓				✓		✓									✓		
Totals	125	16	16	9																			

JOB LIST BY OCCUPATIONAL CATEGORY

Type of Job

PROFESSIONAL & ADMINISTRATIVE

- Accountants
- Advertising managers
- Advertising writers
- Computer specialists
- Credit managers
- Financial managers
- Office & store managers
- Purchasing agents & buyers
- Restaurant & bar managers
- Sales managers & Dept. heads
- Shipping & receiving managers
- Other Professional & Managerial Workers (specify)

CRAFT & TECHNICAL WORKERS

- Automobile accessory installers
- Carpet installers
- Jewelers & watchmakers
- Mechanics & repairmen
  - Airconditioning, heating & refrigeration
  - Aircraft
  - Automobile body
  - Automobile mechanics
  - Data processing equipment
  - Farm equipment
  - Heavy equipment & machinery
  - Household appliance installers & repairmen
  - Office machine
  - Radio & television
  - Other (specify)
- Musical instrument tuners & repairmen
- Shoerepairmen
- Sign painters & lettermen
- Tailors
- Window decorators
- Other craftsmen (specify)

SALES WORKERS

- Counter workers
- Product demonstrators
- Sales representatives (outside office or store)
- Salesmen (women)
- Sales clerks (except food)
- Other sales workers (specify)

Type of Job

SERVICE WORKERS

- Building maintenance
- Cleaning services
  - Janitors & janitresses
  - Supervisors
  - Vehicle washers & equipment cleaners
- Clothing ironers & pressers
- Food service
  - Bartenders
  - Busboys
  - Cooks & grillmen
  - Dishwashers
  - Food counter & fountain workers
  - Waiters & waitresses
  - Other (specify)
- Garage workers
- Guards & watchmen
- Laundry & dry cleaning operatives
- Meat cutters & butchers
- Meat wrappers
- Packers & wrappers
- Service station (gas) attendants
- Delivery Services
  - Delivery & routemen
  - Helpers
  - Loaders & unloaders
  - Other delivery workers (specify)
- Other service workers (specify)

CLERICAL & STOCK WORKERS

- Bill & account collectors
- Bookkeepers
- Cashiers
- Clerical supervisors
- File clerks
- Key punch operators
- Mailhandlers
- Messengers
- Payroll clerks
- Secretaries
- Shipping & receiving clerks
- Stock clerks
- Telephone operators
- Other (specify)

Type of Job

LABORERS

- Freight & material handlers
- Garbage collectors
- Gardeners & groundskeepers
- Warehousemen
- Other (specify)

SAMPLE SURVEY FORM

MINIMUM QUALIFICATIONS FOR HIRING NEW EMPLOYEES (Check all that apply)

Type of Job	AVERAGE MONTHLY EMPLOYMENT: Number of Full-time Employees in 1975	AVERAGE MONTHLY EMPLOYMENT: Number of Part-time Employees in 1975	EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number): New Full-time Employees Expected to [illegible] 1976 & 1977	EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number): New Part-time Employees [illegible] 1976 & 1977
PROFESSIONAL & MANAGERIAL				
Accountants	10	—	1	—
Ad Managers	2	—	—	—
Computer Spec.	7	—	1	—
Purchasing Agents	15	—	2	—
Store Managers	70	—	5	—
Shipping [illegible] Mgrs	9	—	—	—
Ad Writers	5	—		
CLERICAL & SALES WORKERS				
Baggers	50	1650	30	2000
Cashiers	200	1400	—	460
Keypunch Oprs.	10	—	2	—
Mailhandlers	3	—	1	—
Payroll Clerks	6	—	2	—
Secretaries	12	—	—	—
Stock clerks (See Other)	375	1500	—	460
CRAFTS & TECHNICIANS				
Refrigeration	13	—	3	—
Auto Mechanics	10	—	—	—
OPERATIVES & TRANSPORT WORKERS				
NONE				
SERVICE WORKERS & LABORERS				
Janitors	70	—	30	—
Meatcutters & Butchers	1100	—	[illegible]	—
Meat wrappers	71	—	20	—
Warehousemen	150	—	[illegible]	—
Clerical ~~OTHER EMPLOYEES~~				
Bill & Act Clerks	4	—	—	—
Pharmacists	2	—	—	—
Check-[illegible]	[illegible]	—	10	—
Total	2224	[illegible]	[illegible]	[illegible]

	AVERAGE MONTHLY EMPLOYMENT		EXPECTED DEMAND FOR NEW EMPLOYEES (estimated number)		SUPPLY OF QUALIFIED WORKERS (Check One)			MINIMUM QUALIFICATIONS FOR HIRING NEW EMPLOYEES (Check all that apply)															
								EDUCATION									WORK EXPERIENCE				OTHER		
Type of Job	Number of Full-time Employees in 1975	Number of Part-time Employees in 1975	New Full-time Employees Expected in 1976 & 1977	New Part-time Employees Expected in 1976 & 1977	Surplus	Good	Scarce	Less than 4 yrs. HS	Vocational HS Training	HS Graduate	Trade Schl.	Apprenticeship	2-Year College	1 - 3 years College	College Graduate	Professional Degree	0 - 1 year	1 - 3 years	3 - 10 yrs.	over 10 yrs.	Veterans	Handicapped	Other

APPENDIX D

NEWS from NACVE

SPECIAL EDITION

James Rhodes, Chairman

July 1974

Calvin Dellefield, Executive Direc.

This special edition of News from NACVE is devoted to the following article which Samuel M. Burt, a consultant to the National Advisory Council, wrote as an open letter and presented on June 11th at the annual conference held jointly by Maryland's State Advisory Council and the Division of Vocational-Technical Education. Written as a businessman's reply to an invitation to serve on a school advisory committee, the letter tells the educational community what to expect from a businessman and what a businessman expects from the educational community

IF YOU WANT ME TO SERVE ON A SCHOOL ADVISORY COMMITTEE

Mr. Educator:

I am pleased you have asked me to serve as an industry member of an advisory committee to our school system. I shall be delighted to accept your invitation—if you can assure me that I will be involved in an activity which is going to make some worthwhile and important contribution to the education of our youth. I want to be proud enough of this committee's work so that I may brag a little to my family, friends and associates that I was selected to participate—as you, yourself, stated—"because of my reputation as an outstanding member" of the field in which I am earning my living, "as well as for my interest in and understanding of the field of education."

To support my feelings about the importance of my service, I would like to have a letter appointing me on the committee signed by the highest possible school official. The letter should include some biographical information on the chairman and other members of the committee and also tell me exactly what is expected of me as a committee member in the way of advice, assistance, cooperation, money and time. Please note that if you tell me the committee will meet only two or three times a year, I will know that we really aren't going to do anything worthwhile!

On the other hand, if you seriously want help from the committee to improve our educational system, I need to be sure that I will be provided, initially and on a continuing basis, with information concerning educational developments within the school system, as well as at the state and national levels; be invited occationally to attend local, state and national conventions of educators (you will be surprised by how many I will attend at my own or my company's expense); and that I will oc-

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casionally receive a special invitation to attend a school function, a board of education meeting, a state board meeting. I would also like to be kept informed of special studies affecting the educational program of my school system, and if possible, receive copies.

In effect, what I am saying is that if you want me to advise you, I will feel much more comfortable if I know something about you and your environment. And while I am learning, hopefully I am becoming identified with you, the school, and the problems of the educational system. If you can get me to this point you can be assured of my active participation in the school program and on the committee. And beyond offering advice, I will actually cooperate with you to help you achieve your program goals.

How? In every way possible! I would be glad to help raise money for a scholarship fund; to help obtain needed school equipment on loan, as a gift, at special discount; to contribute expendable supplies, instructional and guidance materials; to provide work/study experiences; to employ graduates, to help counsel students; to assist teachers in enriching and expanding their instructional activities; and other services you may request. You name it! What I am really asking is that you, the professional educator, provide me, the interested layman, with counsel and leadership for my committee responsibilities.

I know there will be times when you will ask the committee for something you consider important that for some good reason we will not be able to provide. But we won't just be negative when this happens. We will tell you our problem and try to work things out with you. In the process, we will both learn more about industry and education, and together prove that industry-education cooperation can be a viable way of life for citizens and school people.

Sometimes I might want to do too much and try to get involved in administration. If I do, just point out that the best way I can help you is to give you advice and cooperation and leave the details of day-by-day school operations to you. In reality, I don't even have time to handle all my OWN day-to-day administrative problems, much less yours! But remember—as businessmen, we committee members are problem oriented and if you tell us about your problems we can help you with them, even if it takes time from our personal or business affairs. After all, we expected to spend time with you when we accepted service on the committee.

I would like to be welcomed in the schools as a friend and supporter—not seen as a meddlesome interloper. Naturally there are certain school regulations which I should observe when visiting, and you should make them clear to me. But if I occasionally drop in for a visit, give me a few minutes of your time. Your courtesy will be well repaid. I wouldn't come if I weren't interested!

I would like to know what other schools and school systems are doing about the problems you present to my committee. I want to feel there is some linkage between our school system and others in the area. I would like to know what the private schools are doing and what MDTA educational and training programs are available in the community. I want to understand the relationships which exist between these programs, the State Employment Service, "war-on-poverty" programs, correctional institution training programs and any others that will be providing manpower for industry. I want to know the whole picture, and even get a chance to visit these other educational programs. Perhaps our advisory committees ought to meet together once or twice a year. I want to know about these other programs so that I will not have the nagging feeling that I am being "used" to support one program in opposition to another. I want to feel that I am helping to improve "MY" school's contribution to the total community effort—a

If you want me to serve . .

a taxpayer, as an employer and as an interested citizen concerned with and involved in improving educational and manpower development programs in my community.

I would like to meet, more than on a token once-a-year basis, with the students in the school or program my committee was organized to serve. I want the students to know my committee exists. In the final analysis, our efforts are supposed to be directed at improving the education and training of students. I want them to tell me to what extent we are succeeding. As a matter of fact, I would like to have each graduating class elect one of its members to serve as an ex-officio member on our committee to tell us, in the first year after graduating, how relevant school really is in terms of real jobs.

I would like some expression of appreciation for my volunteered services and contributions. If this committee is as important as you tell me it is, give it and its members some concrete form of recognition. For example, if I donate a piece of equipment, put my nameplate on it. Send me a framed certificate of appreciation for my services. Hold a special annual event to recognize the services of all advisory committee members. Include our names in the school catalog and annual reports. We all like to see our names in print! Besides, when prospective students, their parents and others see that your programs, as described in the catalog, are receiving advice and assistance from industry people, the programs will gain in stature and prestige. In addition, my company and the industry I represent will be more than ever committed to support you.

When you ask me to attend a committee meeting, I want to know beforehand what will be on the agenda. I will want a brief background statement of the problems to be discussed and several possible approaches to the solution of each. Give me at least two weeks' notice of the meeting date. Make it at a convenient time and preferably at a school. And don't hesitate to remind me about it by letter or a phone call.

I want the meeting to be conducted informally and not to get tied up in parliamentary rules of order. I will want the meeting to be held within reasonable time limits. Don't let it drag on and on. I am used to crisp, businesslike procedures. I will want something to happen as a result of the meeting. I will want to know, as soon after the meeting is over as possible, what did and will happen as a result of our advice and services. I don't want to be asked to attend a meeting to approve something after it has already happened. If I find out I am being used that way, don't be surprised when I become your critic instead of your advisor!

I know I am asking a great deal of you. But I am willing to give a great deal in return. And the more you get from the committee, the better your program will be. The same is true for us, of course. All the committee members, as well as the industries we represent, will be benefitted by having a continuing source of qualified manpower available and by getting a good return from our educational tax dollars. All kinds of benefits will emerge if the committee is effectively used.

In the final analysis, this is exactly what I want—effective utilization of my expertise, my knowledge and my interest in serving one of the most important components of my community—my schools and their students. If you are prepared to tell me how, when and where, I will do my best to help you and will appreciate the chance to serve—particularly if you get me involved in an activity in which I have some special interest. This means, of course, you and I will have to discuss what my special interests are vis-a-vis education and young people.

If you think I speak for myself alone, you are very much mistaken. Most industry representatives who agree to serve on school advisory committees feel as I do. However, too often and in too many situations, their expectations have not materialized.

Why? Because in our experience, we have found that too few educators and school administrators understand what motivates industry people to accept service on a school advisory committee. Or, if they do understand, they have not been able to provide the leadership, time and effort to effectively utilize the committees. If you cannot provide the staff time needed to allow for the full range of interests and desires of your committee to serve the school program, you will be better advised not to establish the committee in the first place. A poorly used committee is worse than no committee at all—you would find that you had created your own Frankenstein. Disgruntled members of poorly used committees frequently become the most active critics of school officials and public education.

Well, that seems to cover everything I had to say. It's up to you now to decide whether you want me to serve on your committee. I look forward to hearing from you.

Sincerely,

/s/____________________